



**US Army Corps
of Engineers
Philadelphia District**

Fort Mifflin Sea Wall Stabilization and Protection Project

Philadelphia County, Pennsylvania

**Construction Solicitation
and Specifications**

28 May 2003

This page was intentionally left blank for duplex printing.

CAUTION TO BIDDERS

All information required by the terms of the Solicitation must be furnished. MISTAKES OR OMISSIONS CAN BE COSTLY. Important items for you to check are included in but not limited to those listed below. This checklist is furnished only to assist you in submitting a proper bid. Check as you read.

[] Are you registered in the Central Contractor Database? See DFARS Clause 252.204-7004 "Required Central Contractor Registration" in Section 00700 of this solicitation?

[] Are in compliance with the VETS-100 reporting requirement? See FAR 52. 52.222-37 "Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans in Section" in Section 00700 of this solicitation?

[] Have you acknowledged all amendments? Have you submitted your bid on the latest amended bid schedule?

[] Have you completed the "Representations and Certifications" {Section 00600} portion of the Solicitation? Is your Contractor Establishment Code listed on the Standard Form 1442?

[] Is your bid properly signed by an officer of your company?

[] If a bid guarantee is required, is it included with your bid and is it in the proper amount? {Usually 20 percent of the total bid price, including any options or additives.} If your bid guarantee is in the form of a bid bond, is the bond properly signed by both the bidder and surety (BONDING DOCUMENTS SHOULD BEAR AN ORIGINAL SIGNATURE BY AN OFFICER OF THE SURETY) and are all required seals affixed? A bid guarantee is required when your bid exceeds \$100,000.00. A late bid guarantee is treated the same as a late bid.

[] Is the name in which you submitted the bid the same on your bid as on the bid bond?

[] If required, have you entered a unit price for each bid item? {The solicitation will specifically state when this is necessary.}

[] The Government may reject a bid as nonresponsive if it is materially and mathematically unbalanced as to price for any bid item or combination of items. A bid is unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated for other work.

[] Are decimals in unit prices in the proper places? Are your figures legible?

[] Are the extensions of your unit prices, and your total bid price correct?

[] Are all erasures or corrections initialed by the person signing the bid?

[] Have you restricted your bid by altering the provisions of the solicitation?

[] If you are a large business and your bid is greater than \$500,000 for service or \$1,000,000.00 for construction have you included your Sub-Contracting Plan in your bid package? (NOTE: PLEASE REFER TO SUBCONTRACTING PLAN IN SOLICITATION FOR GOALS).

[] Is the envelope containing your bid properly identified that it is a sealed bid and does it contain the correct solicitation number and bid opening time?

[] Will your bid arrive on time? See paragraph entitled "Late Submissions, Modifications, and Withdrawals of Bids" in the Instructions to Bidders {Section 00100} of the solicitation.

February 27, 2003

This page was intentionally left blank for duplex printing.

INVITATION NO. DACW61-03-B-0014

PHILADELPHIA DISTRICT
CORPS OF ENGINEERS

INVITATION FOR BIDS
FOR

FORT MIFFLIN
SEA WALL STABILIZATION AND PROTECTION PROJECT

PHILADELPHIA COUNTY, PENNSYLVANIA

I. NOTE THE AFFIRMATIVE ACTION REQUIREMENT OF THE EQUAL OPPORTUNITY CLAUSE WHICH MAY APPLY TO THE CONTRACT RESULTING FROM THIS SOLICITATION.

II. BIDDERS ARE CAUTIONED TO NOTE THE "CERTIFICATION OF NONSEGREGATED FACILITIES" IN THE SOLICITATION. FAILURE OF A BIDDER TO AGREE TO THE CERTIFICATION WILL RENDER HIS BID NONRESPONSIVE TO THE TERMS OF SOLICITATIONS INVOLVING AWARDS OF CONTRACTS EXCEEDING \$10,000 WHICH ARE NOT EXEMPT FROM THE PROVISIONS OF THE EQUAL OPPORTUNITY CLAUSE. (1984 APR)

III. BIDDERS ARE REQUIRED TO COMPLETE THE REPRESENTATION AND CERTIFICATIONS PORTION OF SECTION 00600 OF THIS SOLICITATION AND SUBMIT THIS WITH THEIR BIDS.

IV. SITE VISIT: PROSPECTIVE BIDDERS ARE INVITED TO VISIT THE SITE OF THE WORK TO ACQUAINT THEMSELVES WITH THE SITE CONDITIONS AND ANY PROBLEMS INCIDENT TO THE PROSECUTION OF THE WORK. THE SITE VISIT WILL BE HELD ON 13 JUNE 2003. THE SITE VISIT WILL BEGIN AT 8:30 AM AT OLDE FORT MIFFLIN, PA. ALL THOSE PLANNING TO ATTEND SHOULD CONTACT MR. BILL MULLOY AT (215) 656-6583.

28 May 2003

This page was intentionally left blank for duplex printing.

SOLICITATION, OFFER, AND AWARD <i>(Construction, Alteration, or Repair)</i>	1. SOLICITATION NO. DACW61-03-B-0014	2. TYPE OF SOLICITATION <input checked="checked" type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 28-May-2003	PAGE OF PAGES 1 OF 298
IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.				
4. CONTRACT NO. DACW61-03-C-		5. REQUISITION/PURCHASE REQUEST NO. W25PHS-2270-2805		6. PROJECT NO.
7. ISSUED BY US ARMY ENGINEER DISTRICT, PHILADELPHIA CONTRACTING DIVISION WANAMAKER BLDG, 100 PENN SQ EAST PHILADELPHIA PA 19107-3390 TEL: FAX:		CODE DACW61	8. ADDRESS OFFER TO <i>(If Other Than Item 7)</i> CODE <div style="text-align: center; font-weight: bold;">See Item 7</div> TEL: FAX:	
9. FOR INFORMATION CALL:	A. NAME WILLIAM A BAILEY		B. TELEPHONE NO. <i>(Include area code)</i> <i>(NO COLLECT CALLS)</i> 215-656-6932	
SOLICITATION				
NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".				
10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS <i>(Title, identifying no., date):</i> Fort Mifflin Sea Wall Stabilization and Protection Project Solicitation No. DACW61-03-B-0014 Issue Date: May 28, 2003 Bid opening date: June 27, 2003 at 11:00 a.m., local time This is an unrestricted procurement.				
11. The Contractor shall begin performance within <u>10</u> calendar days and complete it within <u>240</u> calendar days after receiving <input type="checkbox"/> award, <input checked="checked" type="checkbox"/> notice to proceed. This performance period is <input checked="checked" type="checkbox"/> mandatory, <input type="checkbox"/> negotiable. <i>(See Section 00800 _____.)</i>				
12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? <i>(If "YES," indicate within how many calendar days after award in Item 12B.)</i> <input checked="checked" type="checkbox"/> YES <input type="checkbox"/> NO			12B. CALENDAR DAYS 10	
13. ADDITIONAL SOLICITATION REQUIREMENTS: A. Sealed offers in original and <u>1</u> copies to perform the work required are due at the place specified in Item 8 by _____ <i>(hour)</i> local time _____ <i>(date)</i> . If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due. B. An offer guarantee <input checked="checked" type="checkbox"/> is, <input type="checkbox"/> is not required. C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference. D. Offers providing less than _____ calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.				

SOLICITATION, OFFER, AND AWARD (Continued)*(Construction, Alteration, or Repair)***OFFER (Must be fully completed by offeror)**

14. NAME AND ADDRESS OF OFFEROR(Include ZIP Code)		15. TELEPHONE NO. (Include area code)
		16. REMITTANCE ADDRESS(Include only if different than Item 14) See Item 14
CODE	FACILITY CODE	

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within _____ calendar days after the date offers are due. *(Insert any number equal to or greater than the minimum requirements stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)*

AMOUNTS	SEE SCHEDULE OF PRICES
---------	------------------------

18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS*(The offeror acknowledges receipt of amendments to the solicitation -- give number and date of each)*

AMENDMENT NO.										
DATE										

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER <i>(Type or print)</i>	20B. SIGNATURE	20C. OFFER DATE
--	----------------	-----------------

AWARD (To be completed by Government)

21. ITEMS ACCEPTED:

22. AMOUNT	23. ACCOUNTING AND APPROPRIATION DATA
------------	---------------------------------------

24. SUBMIT INVOICES TO ADDRESS SHOWN IN <i>(4 copies unless otherwise specified)</i>	ITEM	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO <input type="checkbox"/> 10 U.S.C. 2304(c) <input type="checkbox"/> 41 U.S.C. 253(c)
---	------	--

26. ADMINISTERED BY	CODE	27. PAYMENT WILL BE MADE BY:	CODE
---------------------	------	------------------------------	------

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

<input type="checkbox"/> 28. NEGOTIATED AGREEMENT(Contractor is required to sign this document and return _____ copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications or incorporated by reference in or attached to this contract.	<input type="checkbox"/> 29. AWARD <i>(Contractor is not required to sign this document.)</i> Your offer on this solicitation, is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.
--	--

30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN <i>(Type or print)</i>		31A. NAME OF CONTRACTING OFFICER <i>(Type or print)</i>	
30B. SIGNATURE	30C. DATE	TEL:	EMAIL:
		31B. UNITED STATES OF AMERICA BY	31C. AWARD DATE

PRICE SCHEDULE
(To be attached to SF 1442)

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
1.	Resetting Wall Stones	150	SF	\$	\$
2.	Resetting Capstones	21	LF	\$	\$
3.	Stone Masonry Wall Reconstruction	414	CF	\$	\$
4.	Grouting Stone Masonry Wall	600	SF	\$	\$
5.	Existing Riprap Removal	120	CY	\$	\$
6.	New Riprap	870	TON	\$	\$
7.	Excavation/Backfill Behind Wall	125	CY	\$	\$
8.	Erosion Control Mat	235	SY	\$	\$
9.	Ornamental Fence	1	JOB	LS	\$
10.	Excavation Under Riprap	400	CY	\$	\$

TOTAL ESTIMATED AMOUNT: \$

NOTE: Offerors must offer on all items.

This page was intentionally left blank for duplex printing.

Section 00100 - Bidding Schedule/Instructions to Bidders

CLAUSES INCORPORATED BY FULL TEXT

52.204-6 DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (JUN 99)

(a) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation "DUNS" followed by the DUNS number that identifies the offeror's name and address exactly as stated in the offer.

(b) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one. A DUNS number will be provided immediately by telephone at no charge to the offeror. For information on obtaining a DUNS number, the offeror, if located within the United States, should call Dun and Bradstreet at 1-800-333-0505. The offeror should be prepared to provide the following information:

- (1) Company name.
- (2) Company address.
- (3) Company telephone number.
- (4) Line of business.
- (5) Chief executive officer/key manager.
- (6) Date the company was started.
- (7) Number of people employed by the company.
- (8) Company affiliation.

(c) Offerors located outside the United States may obtain the location and phone number of the local Dun and Bradstreet Information Services office from the Internet Home Page at <http://www.customerservice@dnb.com>. If an offeror is unable to locate a local service center, it may send an e-mail to Dun and Bradstreet at globalinfo@mail.dnb.com.

52.214-3 AMENDMENTS TO INVITATIONS FOR BIDS (DEC 1989)

(a) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.

(b) Bidders shall acknowledge receipt of any amendment to this solicitation (1) by

signing and returning the amendment, (2) by identifying the amendment number and date in the space provided for this purpose on the form for submitting a bid, (3) by letter or telegram, or (4) by facsimile, if facsimile bids are authorized in the solicitation. The Government must receive the acknowledgment by the time and at the place specified for receipt of bids.

52.214-4 FALSE STATEMENTS IN BIDS (APR 1984)

Bidders must provide full, accurate, and complete information as required by this solicitation and its attachments. The penalty for making false statements in bids is prescribed in 18 U.S.C. 1001.

52.214-5 SUBMISSION OF BIDS (MAR 1997)

(a) Bids and bid modifications shall be submitted in sealed envelopes or packages (unless submitted by electronic means) (1) addressed to the office specified in the solicitation, and (2) showing the time and date specified for receipt, the solicitation number, and the name and address of the bidder.

(b) Bidders using commercial carrier services shall ensure that the bid is addressed and marked on the outermost envelope or wrapper as prescribed in subparagraphs (a)(1) and (2) of this provision when delivered to the office specified in the solicitation.

(c) Telegraphic bids will not be considered unless authorized by the solicitation; however, bids may be modified or withdrawn by written or telegraphic notice.

(d) Facsimile bids, modifications, or withdrawals, will not be considered unless authorized by the solicitation.

(e) Bids submitted by electronic commerce shall be considered only if the electronic commerce method was specifically stipulated or permitted by the solicitation.

52.214-6 EXPLANATION TO PROSPECTIVE BIDDERS (APR 1984)

Any prospective bidder desiring an explanation or interpretation of the solicitation, drawings, specifications, etc., must request it in writing soon enough to allow a reply to reach all prospective bidders before the submission of their bids. Oral explanations or instructions given before the award of a contract will not be binding. Any information given a prospective bidder concerning a solicitation will be furnished promptly to all other prospective bidders as an amendment to the solicitation, if that information is necessary in submitting bids or if the lack of it would be prejudicial to other prospective bidders.

52.214-7 LATE SUBMISSIONS, MODIFICATIONS, AND WITHDRAWALS OF BIDS (NOV 1999)

(a) Bidders are responsible for submitting bids, and any modifications or withdrawals, so as to reach the Government office designated in the invitation for bids (IFB) by the time specified in the IFB. If no time is specified in the IFB, the time for receipt is 4:30 p.m., local time, for the designated Government office on the date that bids are due.

(b)(1) Any bid, modification, or withdrawal received at the Government office designated in the IFB after the exact time specified for receipt of bids is "late" and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late bid would not unduly delay the acquisition; and--

(i) If it was transmitted through an electronic commerce method authorized by the IFB, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of bids; or

(ii) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of bids and was under the Government's control prior to the time set for receipt of bids.

(2) However, a late modification of an otherwise successful bid that makes its terms more favorable to the Government, will be considered at any time it is received and may be accepted.

(c) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the bid wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

(d) If an emergency or unanticipated event interrupts normal Government processes so that bids cannot be received at the Government office designated for receipt of bids by the exact time specified in the IFB and urgent Government requirements preclude amendment of the IFB, the time specified for receipt of bids will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

(e) Bids may be withdrawn by written notice received at any time before the exact time set for receipt of bids. If the IFB authorizes facsimile bids, bids may be withdrawn via facsimile received at any time before the exact time set for receipt of bids, subject to the conditions specified in the provision at 52.214-31, Facsimile Bids. A bid may be withdrawn in person by a bidder or its authorized representative if, before the exact time set for receipt of bids, the identity of the person requesting withdrawal is established and the person signs a receipt for the bid.

52.214-12 PREPARATION OF BIDS (APR 1984)

- (a) Bidders are expected to examine the drawings, specifications, Schedule, and all instructions. Failure to do so will be at the bidder's risk.
- (b) Each bidder shall furnish the information required by the solicitation. The bidder shall sign the bid and print or type its name on the Schedule and each continuation sheet on which it makes an entry. Erasures or other changes must be initialed by the person signing the bid. Bids signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the issuing office.
- (c) For each item offered, bidders shall (1) show the unit price, including, unless otherwise specified, packaging, packing, and preservation and (2) enter the extended price for the quantity of each item offered in the "Amount" column of the Schedule. In case of discrepancy between a unit price and an extended price, the unit price will be presumed to be correct, subject, however, to correction to the same extent and in the same manner as any other mistake.
- (d) Bids for supplies or services other than those specified will not be considered unless authorized by the solicitation.
- (e) Bidders must state a definite time for delivery of supplies or for performance of services, unless otherwise specified in the solicitation.
- (f) Time, if stated as a number of days, will include Saturdays, Sundays, and holidays.

52.214-18 PREPARATION OF BIDS--CONSTRUCTION (APR 1984)

- (a) Bids must be (1) submitted on the forms furnished by the Government or on copies of those forms, and (2) manually signed. The person signing a bid must initial each erasure or change appearing on any bid form.
- (b) The bid form may require bidders to submit bid prices for one or more items on various bases, including--
 - (1) Lump sum bidding;
 - (2) Alternate prices;
 - (3) Units of construction; or
 - (4) Any combination of subparagraphs (1) through (3) above.
- (c) If the solicitation requires bidding on all items, failure to do so will disqualify the bid. If bidding on all items is not required, bidders should insert the words "no bid" in the

space provided for any item on which no price is submitted.

(d) Alternate bids will not be considered unless this solicitation authorizes their submission.

52.214-19 CONTRACT AWARD--SEALED BIDDING--CONSTRUCTION (AUG 1996)

(a) The Government will evaluate bids in response to this solicitation without discussions and will award a contract to the responsible bidder whose bid, conforming to the solicitation, will be most advantageous to the Government, considering only price and the price-related factors specified elsewhere in the solicitation.

(b) The Government may reject any or all bids, and waive informalities or minor irregularities in bids received.

(c) The Government may accept any item or combination of items, unless doing so is precluded by a restrictive limitation in the solicitation or the bid.

(d) The Government may reject a bid as nonresponsive if the prices bid are materially unbalanced between line items or subline items. A bid is materially unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated in relation to cost for other work, and if there is a reasonable doubt that the bid will result in the lowest overall cost to the Government even though it may be the low evaluated bid, or if it is so unbalanced as to be tantamount to allowing an advance payment.

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a firm, fixed priced contract resulting from this solicitation.

52.225-10 NOTICE OF BUY AMERICAN ACT REQUIREMENT--CONSTRUCTION MATERIALS (MAY 2002)

(a) Definitions. Construction material, domestic construction material, and foreign construction material, as used in this provision, are defined in the clause of this solicitation entitled "Buy American Act--Construction Materials" (Federal Acquisition Regulation (FAR) clause 52.225-9).

(b) Requests for determinations of inapplicability. An offeror requesting a determination regarding the inapplicability of the Buy American Act should submit the request to the Contracting Officer in time to allow a determination before submission of offers. The

offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of the clause at FAR 52.225-9 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act before submitting its offer, or has not received a response to a previous request, the offeror shall include the information and supporting data in the offer.

(c) Evaluation of offers. (1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act, based on claimed unreasonable cost of domestic construction material, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(3)(i) of the clause at FAR 52.225-9.

(2) If evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable cost.

(d) Alternate offers.

(1) When an offer includes foreign construction material not listed by the Government in this solicitation in paragraph (b)(2) of the clause at FAR 52.225-9, the offeror also may submit an alternate offer based on use of equivalent domestic construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of the clause at FAR 52.225-9 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of the clause at FAR 52.225-9 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic construction material, and the offeror shall be required to furnish such domestic construction material. An offer based on use of the foreign construction material for which an exception was requested--

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

52.233-2 SERVICE OF PROTEST (AUG 1996)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from

Linda M. Toth, Contracting Officer
US Army Corps of Engineers, Philadelphia Distirct
100 Penn Square East
Wanamaker Building, Rm 643
Philadelphia, PA 19107-3390

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

THIS PAGE INTENTIONALLY LEFT BLANK

Section 00600 - Representations & Certifications

CLAUSES INCORPORATED BY FULL TEXT

52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that --

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to --

(i) Those prices,

(ii) The intention to submit an offer, or

(iii) The methods of factors used to calculate the prices offered:

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory --

(1) Is the person in the offeror's organization responsible for determining the prices offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision

_____ (insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization);

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision.

(c) If the offeror deletes or modifies subparagraph (a)(2) of this provision, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (APR 1991)

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this Certification.

(b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989,--

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

(3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of \$100,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision, shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

52.204-5 WOMEN-OWNED BUSINESS (OTHER THAN SMALL BUSINESS)
(MAY 1999)

(a) Definition. Women-owned business concern, as used in this provision, means a concern that is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Representation. [Complete only if the offeror is a women-owned business concern and has not represented itself as a small business concern in paragraph (b)(1) of FAR 52.219-1, Small Business Program Representations, of this solicitation.] The offeror represents that it () is a women-owned business concern.

52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (APR 2002) -
ALTERNATE I (APR 2002)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 237990.

(2) The small business size standard is \$28,500,000.00.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b) Representations. (1) The offeror represents as part of its offer that it () is, () is not a small business concern.

(2) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents, for general statistical purposes, that it () is, () is not a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it () is, () is not a women-owned small business concern.

(4) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it () is, () is not a veteran-owned small business concern.

(5) (Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (b)(4) of this provision.) The offeror represents as part of its offer that it () is, () is not a service-disabled veteran-owned small business concern.

(6) [Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.] The offeror represents, as part of its offer, that--

(i) It () is, () is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and

(ii) It () is, () is not a joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (b)(6)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. (The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture: _____.) Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(7) (Complete if offeror represented itself as disadvantaged in paragraph (b)(2) of this provision.) The offeror shall check the category in which its ownership falls:

_____ Black American.

_____ Hispanic American.

_____ Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).

_____ Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, U.S. Trust Territory of the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).

_____ Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).

_____ Individual/concern, other than one of the preceding.

(c) Definitions. As used in this provision--

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern," means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (a) of this provision.

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern," means a small business concern --

(1) That is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; or

(2) Whose management and daily business operations are controlled by one or more women.

(d) Notice.

(1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to

section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall--

- (i) Be punished by imposition of fine, imprisonment, or both;
- (ii) Be subject to administrative remedies, including suspension and debarment; and
- (iii) Be ineligible for participation in programs conducted under the authority of the Act.

52.219-2 EQUAL LOW BIDS. (OCT 1995)

- (a) This provision applies to small business concerns only.
- (b) The bidder's status as a labor surplus area (LSA) concern may affect entitlement to award in case of tie bids. If the bidder wishes to be considered for this priority, the bidder must identify, in the following space, the LSA in which the costs to be incurred on account of manufacturing or production (by the bidder or the first-tier subcontractors) amount to more than 50 percent of the contract price.

(c) Failure to identify the labor surplus area as specified in paragraph (b) of this provision will preclude the bidder from receiving priority consideration. If the bidder is awarded a contract as a result of receiving priority consideration under this provision and would not have otherwise received award, the bidder shall perform the contract or cause the contract to be performed in accordance with the obligations of an LSA concern.

52.219-22 SMALL DISADVANTAGED BUSINESS STATUS (OCT 1999)

(a) General. This provision is used to assess an offeror's small disadvantaged business status for the purpose of obtaining a benefit on this solicitation. Status as a small business and status as a small disadvantaged business for general statistical purposes is covered by the provision at FAR 52.219-1, Small Business Program Representation.

(b) Representations.

(1) General. The offeror represents, as part of its offer, that it is a small business under the size standard applicable to this acquisition; and either--

___ (i) It has received certification by the Small Business Administration as a small disadvantaged business concern consistent with 13 CFR 124, Subpart B; and

(A) No material change in disadvantaged ownership and control has occurred since its certification;

(B) Where the concern is owned by one or more disadvantaged individuals, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(C) It is identified, on the date of this representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration(PROONet); or

___ (ii) It has submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR 124, Subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted.

(2)___ For Joint Ventures. The offeror represents, as part of its offer, that it is a joint venture that complies with the requirements at 13 CFR 124.1002(f) and that the representation in paragraph (b)(1) of this provision is accurate for the small disadvantaged business concern that is participating in the joint venture. [The offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture: _____.]

(c) Penalties and Remedies. Anyone who misrepresents any aspects of the disadvantaged status of a concern for the purposes of securing a contract or subcontract shall:

(1) Be punished by imposition of a fine, imprisonment, or both;

(2) Be subject to administrative remedies, including suspension and debarment; and

(3) Be ineligible for participation in programs conducted under the authority of the Small Business Act.

52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FEB 1999)

The offeror represents that --

(a) () It has, () has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation;

(b) ☐ It has, ☐ has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

52.222-38 COMPLIANCE WITH VETERANS' EMPLOYMENT REPORTING REQUIREMENTS (DEC 2001)

By submission of its offer, the offeror represents that, if it is subject to the reporting requirements of 38 U.S.C. 4212(d) (i.e., if it has any contract containing Federal Acquisition Regulation clause 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans), it has submitted the most recent VETS-100 Report required by that clause.

52.223-13 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (OCT 2000)

(a) Submission of this certification is a prerequisite for making or entering into this contract imposed by Executive Order 12969, August 8, 1995.

(b) By signing this offer, the offeror certifies that--

(1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or

(2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: (Check each block that is applicable.)

☐ (i) The facility does not manufacture, process or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

☐ (ii) The facility does not have 10 or more full-time employees as specified in section 313.(b)(1)(A) of EPCRA 42 U.S.C. 11023(b)(1)(A);

☐ (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

() (iv) The facility does not fall within Standard Industrial Classification Code (SIC) major groups 20 through 39 or their corresponding North American Industry Classification System (NAICS) sectors 31 through 33; or

() (v) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

252.209-7001 DISCLOSURE OF OWNERSHIP OR CONTROL BY THE GOVERNMENT OF A TERRORIST COUNTRY (MAR 1998)

(a) "Definitions."

As used in this provision --

(a) "Government of a terrorist country" includes the state and the government of a terrorist country, as well as any political subdivision, agency, or instrumentality thereof.

(2) "Terrorist country" means a country determined by the Secretary of State, under section 6(j)(1)(A) of the Export Administration Act of 1979 (50 U.S.C. App. 2405(j)(i)(A)), to be a country the government of which has repeatedly provided support for such acts of international terrorism. As of the date of this provision, terrorist countries include: Cuba, Iran, Iraq, Libya, North Korea, Sudan, and Syria.

(3) "Significant interest" means --

(i) Ownership of or beneficial interest in 5 percent or more of the firm's or subsidiary's securities. Beneficial interest includes holding 5 percent or more of any class of the firm's securities in "nominee shares," "street names," or some other method of holding securities that does not disclose the beneficial owner;

(ii) Holding a management position in the firm, such as a director or officer;

(iii) Ability to control or influence the election, appointment, or tenure of directors or officers in the firm;

(iv) Ownership of 10 percent or more of the assets of a firm such as equipment, buildings, real estate, or other tangible assets of the firm; or

(v) Holding 50 percent or more of the indebtedness of a firm.

(b) "Prohibition on award."

In accordance with 10 U.S.C. 2327, no contract may be awarded to a firm or a subsidiary

of a firm if the government of a terrorist country has a significant interest in the firm or subsidiary or, in the case of a subsidiary, the firm that owns the subsidiary, unless a waiver is granted by the Secretary of Defense.

(c) "Disclosure."

If the government of a terrorist country has a significant interest in the Offeror or a subsidiary of the Offeror, the Offeror shall disclosure such interest in an attachment to its offer. If the Offeror is a subsidiary, it shall also disclose any significant interest the government of a terrorist country has in any firm that owns or controls the subsidiary. The disclosure shall include --

- (1) Identification of each government holding a significant interest; and
- (2) A description of the significant interest held by each government.

252.247-7022 REPRESENTATION OF EXTENT OF TRANSPORTATION BY SEA
(AUG 1992)

(a) The Offeror shall indicate by checking the appropriate blank in paragraph (b) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term supplies is defined in the Transportation of Supplies by Sea clause of this solicitation.

(b) Representation. The Offeror represents that it:

____ (1) Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

____ (2) Does not anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

(c) Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense FAR Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.

Section 00700 - Contract Clauses

CLAUSES INCORPORATED BY FULL TEXT

52.202-1 DEFINITIONS (DEC 2001) --ALTERNATE I (MAY 2001)

- (a) Agency head or head of the agency means the Secretary (Attorney General, Administrator, Governor, Chairperson, or other chief official, as appropriate) of the agency, unless otherwise indicated, including any deputy or assistant chief official of the executive agency.
- (b) "Commercial component" means any component that is a commercial item.
- (c) Any item, other than real property, that is of a type customarily used by the general public or by non-governmental entities for purposes other than governmental purposes, and that--
 - (i) Has been sold, leased, or licensed to the general public; or
 - (ii) Has been offered for sale, lease, or license to the general public;
- (2) Any item that evolved from an item described in paragraph (c)(1) of this clause through advances in technology or performance and that is not yet available in the commercial marketplace, but will be available in the commercial marketplace in time to satisfy the delivery requirements under a Government solicitation;
- (3) Any item that would satisfy a criterion expressed in paragraphs (c)(1) or (c)(2) of this clause, but for--
 - (i) Modifications of a type customarily available in the commercial marketplace; or
 - (ii) Minor modifications of a type not customarily available in the commercial marketplace made to meet Federal Government requirements. "Minor" modifications means modifications that do not significantly alter the nongovernmental function or essential physical characteristics of an item or component, or change the purpose of a process. Factors to be considered in determining whether a modification is minor include the value and size of the modification and the comparative value and size of the final product. Dollar values and percentages may be used as guideposts, but are not conclusive evidence that a modification is minor;
- (4) Any combination of items meeting the requirements of paragraphs (c)(1), (2), (3), or (5) of this clause that are of a type customarily combined and sold in combination to the general public;
- (5) Installation services, maintenance services, repair services, training services, and other services if--

(i) Such services are procured for support of an item referred to in paragraph (c)(1), (2), (3), or (4) of this definition, regardless of whether such services are provided by the same source or at the same time as the item; and

(ii) The source of such services provides similar services contemporaneously to the general public under terms and conditions similar to those offered to the Federal Government;

(6) Services of a type offered and sold competitively in substantial quantities in the commercial marketplace based on established catalog or market prices for specific tasks performed under standard commercial terms and conditions. This does not include services that are sold based on hourly rates without an established catalog or market price for a specific service performed. For purposes of these services--

(i) Catalog price means a price included in a catalog, price list, schedule, or other form that is regularly maintained by the manufacturer or vendor, is either published or otherwise available for inspection by customers, and states prices at which sales are currently, or were last, made to a significant number of buyers constituting the general public; and

(ii) Market prices means current prices that are established in the course of ordinary trade between buyers and sellers free to bargain and that can be substantiated through competition or from sources independent of the offerors.

(7) Any item, combination of items, or service referred to in subparagraphs (c)(1) through (c)(6), notwithstanding the fact that the item, combination of items, or service is transferred between or among separate divisions, subsidiaries, or affiliates of a Contractor; or

(8) A nondevelopmental item, if the procuring agency determines the item was developed exclusively at private expense and sold in substantial quantities, on a competitive basis, to multiple State and local Governments.

(d) Component means any item supplied to the Government as part of an end item or of another component, except that for use in 52.225-9, and 52.225-11 see the definitions in 52.225-9(a) and 52.225-11(a).

(e) Contracting Officer means a person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the Contracting Officer acting within the limits of their authority as delegated by the Contracting Officer.

(f) Nondevelopmental item means--

(1) Any previously developed item of supply used exclusively for governmental purposes by a Federal agency, a State or local government, or a foreign government with which the United States has a mutual defense cooperation agreement;

(2) Any item described in paragraph (f)(1) of this definition that requires only minor modification or modifications of a type customarily available in the commercial marketplace in order to meet the requirements of the procuring department or agency; or

(3) Any item of supply being produced that does not meet the requirements of paragraph (f)(1) or (f)(2) solely because the item is not yet in use.

52.203-3 GRATUITIES (APR 1984)

(a) The right of the Contractor to proceed may be terminated by written notice if, after notice and hearing, the agency head or a designee determines that the Contractor, its agent, or another representative--

(1) Offered or gave a gratuity (e.g., an entertainment or gift) to an officer, official, or employee of the Government; and

(2) Intended, by the gratuity, to obtain a contract or favorable treatment under a contract.

(b) The facts supporting this determination may be reviewed by any court having lawful jurisdiction.

(c) If this contract is terminated under paragraph (a) of this clause, the Government is entitled--

(1) To pursue the same remedies as in a breach of the contract; and

(2) In addition to any other damages provided by law, to exemplary damages of not less than 3 nor more than 10 times the cost incurred by the Contractor in giving gratuities to the person concerned, as determined by the agency head or a designee. (This subparagraph (c)(2) is applicable only if this contract uses money appropriated to the Department of Defense.)

(d) The rights and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

52.203-5 COVENANT AGAINST CONTINGENT FEES (APR 1984)

(a) The Contractor warrants that no person or agency has been employed or retained to solicit or obtain this contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or, in its discretion, to deduct from the contract price or consideration, or otherwise recover, the full amount of the contingent fee.

(b) "Bona fide agency," as used in this clause, means an established commercial or selling agency, maintained by a contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds itself out as being able to obtain any Government contract or contracts through improper influence.

"Bona fide employee," as used in this clause, means a person, employed by a contractor and subject to the contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds out as being able to obtain any Government contract or contracts through improper influence.

"Contingent fee," as used in this clause, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract.

"Improper influence," as used in this clause, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

52.203-7 ANTI-KICKBACK PROCEDURES. (JUL 1995)

(a) Definitions.

"Kickback," as used in this clause, means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided, directly or indirectly, to any prime Contractor, prime Contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a subcontract relating to a prime contract.

"Person," as used in this clause, means a corporation, partnership, business association of any kind, trust, joint-stock company, or individual.

"Prime contract," as used in this clause, means a contract or contractual action entered into by the United States for the purpose of obtaining supplies, materials, equipment, or services of any kind.

"Prime Contractor," as used in this clause, means a person who has entered into a prime contract with the United States.

"Prime Contractor employee," as used in this clause, means any officer, partner, employee, or agent of a prime Contractor.

"Subcontract," as used in this clause, means a contract or contractual action entered into by a prime Contractor or subcontractor for the purpose of obtaining supplies, materials, equipment, or

services of any kind under a prime contract.

"Subcontractor," as used in this clause, (1) means any person, other than the prime Contractor, who offers to furnish or furnishes any supplies, materials, equipment, or services of any kind under a prime contract or a subcontract entered into in connection with such prime contract, and (2) includes any person who offers to furnish or furnishes general supplies to the prime Contractor or a higher tier subcontractor.

"Subcontractor employee," as used in this clause, means any officer, partner, employee, or agent of a subcontractor.

(b) The Anti-Kickback Act of 1986 (41 U.S.C. 51-58) (the Act), prohibits any person from -

(1) Providing or attempting to provide or offering to provide any kickback;

(2) Soliciting, accepting, or attempting to accept any kickback; or

(3) Including, directly or indirectly, the amount of any kickback in the contract price charged by a prime Contractor to the United States or in the contract price charged by a subcontractor to a prime Contractor or higher tier subcontractor.

(c)(1) The Contractor shall have in place and follow reasonable procedures designed to prevent and detect possible violations described in paragraph (b) of this clause in its own operations and direct business relationships.

(2) When the Contractor has reasonable grounds to believe that a violation described in paragraph (b) of this clause may have occurred, the Contractor shall promptly report in writing the possible violation. Such reports shall be made to the inspector general of the contracting agency, the head of the contracting agency if the agency does not have an inspector general, or the Department of Justice.

(3) The Contractor shall cooperate fully with any Federal agency investigating a possible violation described in paragraph (b) of this clause.

(4) The Contracting Officer may (i) offset the amount of the kickback against any monies owed by the United States under the prime contract and/or (ii) direct that the Prime Contractor withhold, from sums owed a subcontractor under the prime contract, the amount of any kickback. The Contracting Officer may order the monies withheld under subdivision (c)(4)(ii) of this clause be paid over to the Government unless the Government has already offset those monies under subdivision (c)(4)(i) of this clause. In either case, the Prime Contractor shall notify the Contracting Officer when the monies are withheld.

(5) The Contractor agrees to incorporate the substance of this clause, including this subparagraph (c)(5) but excepting subparagraph (c)(1), in all subcontracts under this contract which exceed \$100,000.

52.203-8 CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

(a) If the Government receives information that a contractor or a person has engaged in conduct constituting a violation of subsection (a), (b), (c), or (d) of Section 27 of the Office of Federal Procurement Policy Act (41 U.S.C. 423) (the Act), as amended by section 4304 of the 1996 National Defense Authorization Act for Fiscal Year 1996 (Pub. L. 104-106), the Government may--

(1) Cancel the solicitation, if the contract has not yet been awarded or issued; or

(2) Rescind the contract with respect to which--

(i) The Contractor or someone acting for the Contractor has been convicted for an offense where the conduct constitutes a violation of subsection 27(a) or (b) of the Act for the purpose of either--

(A) Exchanging the information covered by such subsections for anything of value; or

(B) Obtaining or giving anyone a competitive advantage in the award of a Federal agency procurement contract; or

(ii) The head of the contracting activity has determined, based upon a preponderance of the evidence, that the Contractor or someone acting for the Contractor has engaged in conduct constituting an offense punishable under subsections 27(e)(1) of the Act.

(b) If the Government rescinds the contract under paragraph (a) of this clause, the Government is entitled to recover, in addition to any penalty prescribed by law, the amount expended under the contract.

(c) The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law, regulation, or under this contract.

52.203-10 PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

(a) The Government, at its election, may reduce the price of a fixed-price type contract and the total cost and fee under a cost-type contract by the amount of profit or fee determined as set forth in paragraph (b) of this clause if the head of the contracting activity or designee determines that there was a violation of subsection 27 (a), (b), or (c) of the Office of Federal Procurement Policy Act, as amended (41 U.S.C. 423), as implemented in section 3.104 of the Federal Acquisition Regulation.

(b) The price or fee reduction referred to in paragraph (a) of this clause shall be--

(1) For cost-plus-fixed-fee contracts, the amount of the fee specified in the contract at the time of award;

(2) For cost-plus-incentive-fee contracts, the target fee specified in the contract at the time of award, notwithstanding any minimum fee or "fee floor" specified in the contract;

(3) For cost-plus-award-fee contracts--

(i) The base fee established in the contract at the time of contract award;

(ii) If no base fee is specified in the contract, 30 percent of the amount of each award fee otherwise payable to the Contractor for each award fee evaluation period or at each award fee determination point.

(4) For fixed-price-incentive contracts, the Government may--

(i) Reduce the contract target price and contract target profit both by an amount equal to the initial target profit specified in the contract at the time of contract award; or

(ii) If an immediate adjustment to the contract target price and contract target profit would have a significant adverse impact on the incentive price revision relationship under the contract, or adversely affect the contract financing provisions, the Contracting Officer may defer such adjustment until establishment of the total final price of the contract. The total final price established in accordance with the incentive price revision provisions of the contract shall be reduced by an amount equal to the initial target profit specified in the contract at the time of contract award and such reduced price shall be the total final contract price.

(5) For firm-fixed-price contracts, by 10 percent of the initial contract price or a profit amount determined by the Contracting Officer from records or documents in existence prior to the date of the contract award.

(c) The Government may, at its election, reduce a prime contractor's price or fee in accordance with the procedures of paragraph (b) of this clause for violations of the Act by its subcontractors by an amount not to exceed the amount of profit or fee reflected in the subcontract at the time the subcontract was first definitively priced.

(d) In addition to the remedies in paragraphs (a) and (c) of this clause, the Government may terminate this contract for default. The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law or under this contract.

52.203-12 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (JUN 1997)

(a) Definitions.

"Agency," as used in this clause, means executive agency as defined in 2.101.

"Covered Federal action," as used in this clause, means any of the following Federal actions:

- (1) The awarding of any Federal contract.
- (2) The making of any Federal grant.
- (3) The making of any Federal loan.
- (4) The entering into of any cooperative agreement.
- (5) The extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

"Indian tribe" and "tribal organization," as used in this clause, have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450B) and include Alaskan Natives.

"Influencing or attempting to influence," as used in this clause, means making, with the intent to influence, any communication to or appearance before an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal action.

"Local government," as used in this clause, means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, including a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government.

"Officer or employee of an agency," as used in this clause, includes the following individuals who are employed by an agency:

- (1) An individual who is appointed to a position in the Government under Title 5, United States Code, including a position under a temporary appointment.
- (2) A member of the uniformed services, as defined in subsection 101(3), Title 37, United States Code.
- (3) A special Government employee, as defined in section 202, Title 18, United States Code.
- (4) An individual who is a member of a Federal advisory committee, as defined by the Federal Advisory Committee Act, Title 5, United States Code, appendix 2.

"Person," as used in this clause, means an individual, corporation, company, association, authority, firm, partnership, society, State, and local government, regardless of whether such entity is operated for profit, or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Reasonable compensation," as used in this clause, means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

"Reasonable payment," as used in this clause, means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

"Recipient," as used in this clause, includes the Contractor and all subcontractors. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Regularly employed," as used in this clause, means, with respect to an officer or employee of a person requesting or receiving a Federal contract, an officer or employee who is employed by such person for at least 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract. An officer or employee who is employed by such person for less than 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person shall be considered to be regularly employed as soon as he or she is employed by such person for 130 working days.

"State," as used in this clause, means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, a territory or possession of the United States, an agency or instrumentality of a State, and multi-State, regional, or interstate entity having governmental duties and powers.

(b) Prohibitions.

(1) Section 1352 of Title 31, United States Code, among other things, prohibits a recipient of a Federal contract, grant, loan, or cooperative agreement from using appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; or the modification of any Federal contract, grant, loan, or cooperative agreement.

(2) The Act also requires Contractors to furnish a disclosure if any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have

been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a Federal contract, grant, loan, or cooperative agreement.

(3) The prohibitions of the Act do not apply under the following conditions:

(i) Agency and legislative liaison by own employees.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of a payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action if the payment is for agency and legislative liaison activities not directly related to a covered Federal action.

(B) For purposes of subdivision (b)(3)(i)(A) of this clause, providing any information specifically requested by an agency or Congress is permitted at any time.

(C) The following agency and legislative liaison activities are permitted at any time where they are not related to a specific solicitation for any covered Federal action:

(1) Discussing with an agency the qualities and characteristics (including individual demonstrations) of the person's products or services, conditions or terms of sale, and service capabilities.

(2) Technical discussions and other activities regarding the application or adaptation of the person's products or services for an agency's use.

(D) The following agency and legislative liaison activities are permitted where they are prior to formal solicitation of any covered Federal action--

(1) Providing any information not specifically requested but necessary for an agency to make an informed decision about initiation of a covered Federal action;

(2) Technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and

(3) Capability presentations by persons seeking awards from an agency pursuant to the provisions of the Small Business Act, as amended by Pub. L. 95-507, and subsequent amendments.

(E) Only those services expressly authorized by subdivision (b)(3)(i)(A) of this clause are permitted under this clause.

(ii) Professional and technical services.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of--

(1) A payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action, if payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action.

(2) Any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action. Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.

(B) For purposes of subdivision (b)(3)(ii)(A) of this clause, "professional and technical services" shall be limited to advice and analysis directly applying any professional or technical discipline. For example, drafting of a legal document accompanying a bid or proposal by a lawyer is allowable. Similarly, technical advice provided by an engineer on the performance or operational capability of a piece of equipment rendered directly in the negotiation of a contract is allowable. However, communications with the intent to influence made by a professional (such as a licensed lawyer) or a technical person (such as a licensed accountant) are not allowable under this section unless they provide advice and analysis directly applying their professional or technical expertise and unless the advice or analysis is rendered directly and solely in the preparation, submission or negotiation of a covered Federal action. Thus, for example, communications with the intent to influence made by a lawyer that do not provide legal advice or analysis directly and solely related to the legal aspects of his or her client's proposal, but generally advocate one proposal over another are not allowable under this section because the lawyer is not providing professional legal services. Similarly, communications with the intent to influence made by an engineer providing an engineering analysis prior to the preparation or submission of a bid or proposal are not allowable under this section since the engineer is providing technical services but not directly in the preparation, submission or negotiation of a covered Federal action.

(C) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation and any other requirements in the actual award documents.

(D) Only those services expressly authorized by subdivisions (b)(3)(ii)(A)(1) and (2) of this clause are permitted under this clause.

(E) The reporting requirements of FAR 3.803(a) shall not apply with respect to payments of reasonable compensation made to regularly employed officers or employees of a person.

(c) Disclosure.

(1) The Contractor who requests or receives from an agency a Federal contract shall file with that agency a disclosure form, OMB standard form LLL, Disclosure of Lobbying Activities, if such person has made or has agreed to make any payment using nonappropriated funds (to include profits from any covered Federal action), which would be prohibited under subparagraph (b)(1) of this clause, if paid for with appropriated funds.

(2) The Contractor shall file a disclosure form at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under subparagraph (c)(1) of this clause. An event that materially affects the accuracy of the information reported includes--

(i) A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or

(ii) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or

(iii) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.

(3) The Contractor shall require the submittal of a certification, and if required, a disclosure form by any person who requests or receives any subcontract exceeding \$100,000 under the Federal contract.

(4) All subcontractor disclosure forms (but not certifications) shall be forwarded from tier to tier until received by the prime Contractor. The prime Contractor shall submit all disclosures to the Contracting Officer at the end of the calendar quarter in which the disclosure form is submitted by the subcontractor. Each subcontractor certification shall be retained in the subcontract file of the awarding Contractor.

(d) Agreement. The Contractor agrees not to make any payment prohibited by this clause.

(e) Penalties.

(1) Any person who makes an expenditure prohibited under paragraph (a) of this clause or who fails to file or amend the disclosure form to be filed or amended by paragraph (b) of this clause shall be subject to civil penalties as provided for by 31 U.S.C. 1352. An imposition of a civil penalty does not prevent the Government from seeking any other remedy that may be applicable.

(2) Contractors may rely without liability on the representation made by their subcontractors in the certification and disclosure form.

(f) Cost allowability. Nothing in this clause makes allowable or reasonable any costs which would otherwise be unallowable or unreasonable. Conversely, costs made specifically unallowable by the requirements in this clause will not be made allowable under any other provision.

52.204-4 PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER (AUG 2000)

(a) Definitions. As used in this clause--

“Postconsumer material” means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of “recovered material.” For paper and paper products, postconsumer material means “postconsumer fiber” defined by the U.S. Environmental Protection Agency (EPA) as--

(1) Paper, paperboard, and fibrous materials from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item, including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards; and used cordage; or

(2) All paper, paperboard, and fibrous materials that enter and are collected from municipal solid waste; but not

(3) Fiber derived from printers' over-runs, converters' scrap, and over-issue publications.

“Printed or copied double-sided” means printing or reproducing a document so that information is on both sides of a sheet of paper.

“Recovered material,” for paper and paper products, is defined by EPA in its Comprehensive Procurement Guideline as “recovered fiber” and means the following materials:

(1) Postconsumer fiber; and

(2) Manufacturing wastes such as--

(i) Dry paper and paperboard waste generated after completion of the papermaking process (that is, those manufacturing operations up to and including the cutting and trimming of the paper machine reel into smaller rolls or rough sheets) including: envelope cuttings, bindery trimmings, and other paper and paperboard waste resulting from printing, cutting, forming, and other converting operations; bag, box, and carton manufacturing wastes; and butt rolls, mill wrappers, and rejected unused stock; and

(ii) Repulped finished paper and paperboard from obsolete inventories of paper and paperboard manufacturers, merchants, wholesalers, dealers, printers, converters, or others.

(b) In accordance with Section 101 of Executive Order 13101 of September 14, 1998, Greening the Government through Waste Prevention, Recycling, and Federal Acquisition, the Contractor is encouraged to submit paper documents, such as offers, letters, or reports, that are printed or copied double-sided on recycled paper that meet minimum content standards specified in Section 505 of Executive Order 13101, when not using electronic commerce methods to submit information or data to the Government.

(c) If the Contractor cannot purchase high-speed copier paper, offset paper, forms bond, computer printout paper, carbonless paper, file folders, white wove envelopes, writing and office paper, book paper, cotton fiber paper, and cover stock meeting the 30 percent postconsumer material standard for use in submitting paper documents to the Government, it should use paper containing no less than 20 percent postconsumer material. This lesser standard should be used only when paper meeting the 30 percent postconsumer material standard is not obtainable at a reasonable price or does not meet reasonable performance standards.

52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (JUL 1995)

(a) The Government suspends or debar Contractors to protect the Government's interests. The Contractor shall not enter into any subcontract in excess of the \$25,000 with a Contractor that is debarred, suspended, or proposed for debarment unless there is a compelling reason to do so.

(b) The Contractor shall require each proposed first-tier subcontractor, whose subcontract will exceed \$25,000, to disclose to the Contractor, in writing, whether as of the time of award of the subcontract, the subcontractor, or its principles, is or is not debarred, suspended, or proposed for debarment by the Federal Government.

(c) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is debarred, suspended, or proposed for debarment (see FAR 9.404 for information on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs). The notice must include the following:

(1) The name of the subcontractor.

(2) The Contractor's knowledge of the reasons for the subcontractor being on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.

(3) The compelling reason(s) for doing business with the subcontractor notwithstanding its inclusion on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.

(4) The systems and procedures the Contractor has established to ensure that it is fully protecting the Government's interests when dealing with such subcontractor in view of the specific basis for the party's debarment, suspension, or proposed debarment.

52.211-13 TIME EXTENSIONS (SEP 2000)

Time extensions for contract changes will depend upon the extent, if any, by which the changes cause delay in the completion of the various elements of construction. The change order granting the time extension may provide that the contract completion date will be extended only for those specific elements related to the changed work and that the remaining contract completion dates for all other portions of the work will not be altered. The change order also may provide an equitable readjustment of liquidated damages under the new completion schedule.

52.211-18 VARIATION IN ESTIMATED QUANTITY (APR 1984)

If the quantity of a unit-priced item in this contract is an estimated quantity and the actual quantity of the unit-priced item varies more than 15 percent above or below the estimated quantity, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Contractor may request, in writing, an extension of time, to be received by the Contracting Officer within 10 days from the beginning of the delay, or within such further period as may be granted by the Contracting Officer before the date of final settlement of the contract. Upon the receipt of a written request for an extension, the Contracting Officer shall ascertain the facts and make an adjustment for extending the completion date as, in the judgement of the Contracting Officer, is justified.

52.214-29 ORDER OF PRECEDENCE--SEALED BIDDING (JAN 1986)

Any inconsistency in this solicitation or contract shall be resolved by giving precedence in the following order: (a) the Schedule (excluding the specifications); (b) representations and other instructions; (c) contract clauses; (d) other documents, exhibits, and attachments; and (e) the specifications.

52.219-4 NOTICE OF PRICE EVALUATION PREFERENCE FOR HUBZONE SMALL BUSINESS CONCERNS (JAN 1999)

(a) Definition. HUBZone small business concern, as used in this clause, means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

(b) Evaluation preference. (1) Offers will be evaluated by adding a factor of 10 percent to the price of all offers, except--

(i) Offers from HUBZone small business concerns that have not waived the evaluation preference;

(ii) Otherwise successful offers from small business concerns;

(iii) Otherwise successful offers of eligible products under the Trade Agreements Act when the dollar threshold for application of the Act is exceeded (see 25.402 of the Federal Acquisition Regulation (FAR)); and

(iv) Otherwise successful offers where application of the factor would be inconsistent with a Memorandum of Understanding or other international agreement with a foreign government.

(2) The factor of 10 percent shall be applied on a line item basis or to any group of items on which award may be made. Other evaluation factors described in the solicitation shall be applied before application of the factor.

(3) A concern that is both a HUBZone small business concern and a small disadvantaged business concern will receive the benefit of both the HUBZone small business price evaluation preference and the small disadvantaged business price evaluation adjustment (see FAR clause 52.219-23). Each applicable price evaluation preference or adjustment shall be calculated independently against an offeror's base offer.

These individual preference amounts shall be added together to arrive at the total evaluated price for that offer.

(c) Waiver of evaluation preference. A HUBZone small business concern may elect to waive the evaluation preference, in which case the factor will be added to its offer for evaluation purposes. The agreements in paragraph (d) of this clause do not apply if the offeror has waived the evaluation preference.

___ Offeror elects to waive the evaluation preference.

(d) Agreement. A HUBZone small business concern agrees that in the performance of the contract, in the case of a contract for

(1) Services (except construction), at least 50 percent of the cost of personnel for contract performance will be spent for employees of the concern or employees of other HUBZone small business concerns;

(2) Supplies (other than procurement from a nonmanufacturer of such supplies), at least 50 percent of the cost of manufacturing, excluding the cost of materials, will be performed by the concern or other HUBZone small business concerns;

(3) General construction, at least 15 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns; or

(4) Construction by special trade contractors, at least 25 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns.

(e) A HUBZone joint venture agrees that in the performance of the contract, the applicable percentage specified in paragraph (d) of this clause will be performed by the HUBZone small business participant or participants.

(f) A HUBZone small business concern nonmanufacturer agrees to furnish in performing this contract only end items manufactured or produced by HUBZone small business manufacturer concerns. This paragraph does not apply in connection with construction or service contracts.

52.219-8 UTILIZATION OF SMALL BUSINESS CONCERNS (OCT 2000)

(a) It is the policy of the United States that small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns shall have the maximum practicable opportunity to participate in performing contracts let by any Federal agency, including contracts and subcontracts for subsystems, assemblies, components, and related services for major systems. It is further the policy of the United States that its prime contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts with small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns.

(b) The Contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with efficient contract performance. The Contractor further agrees to cooperate in any studies or surveys as may be conducted by the United States Small Business Administration or the awarding agency of the United States as may be necessary to determine the extent of the Contractor's compliance with this clause.

Definitions. As used in this contract--

HUBZone small business concern means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

Small business concern means a small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto.

Small disadvantaged business concern means a small business concern that represents, as part of its offer that--

(1) It has received certification as a small disadvantaged business concern consistent with 13 CFR part 124, subpart B;

(2) No material change in disadvantaged ownership and control has occurred since its certification;

(3) Where the concern is owned by one or more individuals, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(4) It is identified, on the date of its representation, as a certified small disadvantaged business in the database maintained by the Small Business Administration (PRO-Net).

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

Women-owned small business concern means a small business concern--

(1) That is at least 51 percent owned by one or more women, or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(d) Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as a small business concern, a veteran-owned small business concern, a service-disabled veteran-owned small business concern, a HUBZone small business concern, a small disadvantaged business concern, or a women-owned small business concern.

52.219-14 LIMITATIONS ON SUBCONTRACTING (DEC 1996)

(a) This clause does not apply to the unrestricted portion of a partial set-aside.

(b) By submission of an offer and execution of a contract, the Offeror/Contractor agrees that in performance of the contract in the case of a contract for--

(1) Services (except construction). At least 50 percent of the cost of contract performance incurred for personnel shall be expended for employees of the concern.

(2) Supplies (other than procurement from a nonmanufacturer of such supplies). The concern shall perform work for at least 50 percent of the cost of manufacturing the supplies, not including the cost of materials.

(3) General construction. The concern will perform at least 15 percent of the cost of the contract, not including the cost of materials, with its own employees.

(4) Construction by special trade contractors. The concern will perform at least 25 percent of the cost of the contract, not including the cost of materials, with its own employees.

52.222-1 NOTICE TO THE GOVERNMENT OF LABOR DISPUTES (FEB 1997)

If the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this contract, the Contractor shall immediately give notice, including all relevant information, to the Contracting Officer.

52.222-3 CONVICT LABOR (AUG 1996)

The Contractor agrees not to employ in the performance of this contract any person undergoing a sentence of imprisonment which has been imposed by any court of a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or the Trust Territory of the Pacific Islands. This limitation, however, shall not prohibit the employment by the Contractor in the performance of this contract of persons on parole or probation to work at paid employment during the term of their sentence or persons who have been pardoned or who have served their terms. Nor shall it prohibit the employment by the Contractor in the performance of this contract of persons

confined for violation of the laws of any of the States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or the Trust Territory of the Pacific Islands who are authorized to work at paid employment in the community under the laws of such jurisdiction, if--

- (a)(1) The worker is paid or is in an approved work training program on a voluntary basis;
 - (2) Representatives of local union central bodies or similar labor union organizations have been consulted;
 - (3) Such paid employment will not result in the displacement of employed workers, or be applied in skills, crafts, or trades in which there is a surplus of available gainful labor in the locality, or impair existing contracts for services; and
 - (4) The rates of pay and other conditions of employment will not be less than those paid or provided for work of a similar nature in the locality in which the work is being performed; and
- (b) The Attorney General of the United States has certified that the work-release laws or regulations of the jurisdiction involved are in conformity with the requirements of Executive Order 11755, as amended by Executive Orders 12608 and 12943.

52.222-4 CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION. (SEP 2000)

- (a) Overtime requirements. No Contractor or subcontractor employing laborers or mechanics (see Federal Acquisition Regulation 22.300) shall require or permit them to work over 40 hours in any workweek unless they are paid at least 1 and 1/2 times the basic rate of pay for each hour worked over 40 hours.
- (b) Violation; liability for unpaid wages; liquidated damages. The responsible Contractor and subcontractor are liable for unpaid wages if they violate the terms in paragraph (a) of this clause. In addition, the Contractor and subcontractor are liable for liquidated damages payable to the Government. The Contracting Officer will assess liquidated damages at the rate of \$10 per affected employee for each calendar day on which the employer required or permitted the employee to work in excess of the standard workweek of 40 hours without paying overtime wages required by the Contract Work Hours and Safety Standards Act.
- (c) Withholding for unpaid wages and liquidated damages. The Contracting Officer will withhold from payments due under the contract sufficient funds required to satisfy any Contractor or subcontractor liabilities for unpaid wages and liquidated damages. If amounts withheld under the contract are insufficient to satisfy Contractor or subcontractor liabilities, the Contracting Officer will withhold payments from other Federal or Federally assisted contracts held by the same Contractor that are subject to the Contract Work Hours and Safety Standards Act.

(d) Payrolls and basic records.

(1) The Contractor and its subcontractors shall maintain payrolls and basic payroll records for all laborers and mechanics working on the contract during the contract and shall make them available to the Government until 3 years after contract completion. The records shall contain the name and address of each employee, social security number, labor classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. The records need not duplicate those required for construction work by Department of Labor regulations at 29 CFR 5.5(a)(3) implementing the Davis-Bacon Act.

(2) The Contractor and its subcontractors shall allow authorized representatives of the Contracting Officer or the Department of Labor to inspect, copy, or transcribe records maintained under paragraph (d)(1) of this clause. The Contractor or subcontractor also shall allow authorized representatives of the Contracting Officer or Department of Labor to interview employees in the workplace during working hours.

(e) Subcontracts. The Contractor shall insert the provisions set forth in paragraphs (a) through (d) of this clause in subcontracts exceeding \$100,000 and require subcontractors to include these provisions in any lower tier subcontracts. The Contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the provisions set forth in paragraphs (a) through (d) of this clause.

52.222-6 DAVIS-BACON ACT (FEB 1995)

(a) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (d) of this clause; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such period. Such laborers and mechanics shall be paid not less than the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in the clause entitled Apprentices and Trainees. Laborers or mechanics performing work in more than one classification may be

compensated at the rate specified for each classification for the time actually worked therein; provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (b) of this clause) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(b)(1) The Contracting Officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination.

(ii) The classification is utilized in the area by the construction industry.

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits, where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator or an authorized representative will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(3) In the event the Contractor, the laborers or mechanics to be employed in the classification, or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits, where appropriate) determined pursuant to subparagraphs (b)(2) and (b)(3) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(c) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(c) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided, That the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

52.222-7 WITHHOLDING OF FUNDS (FEB 1988)

The Contracting Officer shall, upon his or her own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same Prime Contractor, or any other Federally assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same Prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

52.222-8 PAYROLLS AND BASIC RECORDS (FEB 1988)

(a) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of 3 years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found, under paragraph (d) of the clause entitled Davis-Bacon Act, that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(b)(1) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraph (a) of this clause. This information may be submitted in any form desired. Optional Form WH-347 (Federal Stock Number 029-005-00014-1) is available for this purpose and may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. The Prime Contractor is responsible for the submission of copies of payrolls by all subcontractors.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify--

(i) That the payroll for the payroll period contains the information required to be maintained under paragraph (a) of this clause and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR Part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph (b)(2) of this clause.

(4) The falsification of any of the certifications in this clause may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.

(c) The Contractor or subcontractor shall make the records required under paragraph (a) of this clause available for inspection, copying, or transcription by the Contracting Officer or authorized representatives of the Contracting Officer or the Department of Labor. The Contractor or subcontractor shall permit the Contracting Officer or representatives of the Contracting Officer or the Department of Labor to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit required records or to make them available, the Contracting Officer may, after written notice to the Contractor, take such action as may be

necessary to cause the suspension of any further payment. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

52.222-9 APPRENTICES AND TRAINEES (FEB 1988)

(a) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in this paragraph, shall be paid not less than the applicable wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(b) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed

as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(c) Equal employment opportunity. The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

52.222-10 COMPLIANCE WITH COPELAND ACT REQUIREMENTS (FEB 1988)

The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.

52.222-11 SUBCONTRACTS (LABOR STANDARDS (FEB 1988)

(a) The Contractor or subcontractor shall insert in any subcontracts the clauses entitled Davis-Bacon Act, Contract Work Hours and Safety Standards Act-Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Withholding of Funds, Subcontracts (Labor Standards), Contract Termination-Debarment, Disputes Concerning Labor Standards, Compliance with Davis-Bacon and Related Act Regulations, and Certification of Eligibility, and such other clauses as the Contracting Officer may, by appropriate instructions, require, and also a clause requiring subcontractors to include these clauses in any lower tier subcontracts. The Prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with all the contract clauses cited in this paragraph.

(b)(1) Within 14 days after award of the contract, the Contractor shall deliver to the Contracting Officer a completed Statement and Acknowledgment Form (SF 1413) for each subcontract, including the subcontractor's signed and dated acknowledgment that the clauses set forth in paragraph (a) of this clause have been included in the subcontract.

(2) Within 14 days after the award of any subsequently awarded subcontract the Contractor shall deliver to the Contracting Officer an updated completed SF 1413 for such additional subcontract.

52.222-12 CONTRACT TERMINATION--DEBARMENT (FEB 1988)

A breach of the contract clauses entitled Davis-Bacon Act, Contract Work Hours and Safety Standards Act--Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Subcontracts (Labor Standards), Compliance with Davis-Bacon and Related Act Regulations, or Certification of Eligibility may be grounds for termination of the contract, and for debarment as a Contractor and subcontractor as provided in 29 CFR 5.12.

52.222-13 COMPLIANCE WITH DAVIS-BACON AND RELATED ACT REGULATIONS (FEB 1988)

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are hereby incorporated by reference in this contract.

52.222-14 DISPUTES CONCERNING LABOR STANDARDS (FEB 1988)

The United States Department of Labor has set forth in 29 CFR Parts 5, 6, and 7 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

52.222-15 CERTIFICATION OF ELIGIBILITY (FEB 1988)

(a) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(b) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(c) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C.

1001.

52.222-21 PROHIBITION OF SEGREGATED FACILITIES (FEB 1999)

(a) Segregated facilities, as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

(b) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Opportunity clause of this contract.

52.222-23 NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY FOR CONSTRUCTION (FEB 1999)

(a) The offeror's attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.

(b) The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for minority participation for each trade	Goals for female participation for each trade
17.3	6.9

These goals are applicable to all the Contractor's construction work performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, the Contractor shall apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the Federal Register in notice form, and these notices may be obtained from any Office of Federal Contract Compliance

Programs office.

(c) The Contractor's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on (1) its implementation of the Equal Opportunity clause, (2) specific affirmative action obligations required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and (3) its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

(d) The Contractor shall provide written notification to the Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, within 10 working days following award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the --

- (1) Name, address, and telephone number of the subcontractor;
- (2) Employer's identification number of the subcontractor;
- (3) Estimated dollar amount of the subcontract;
- (4) Estimated starting and completion dates of the subcontract; and
- (5) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is Philadelphia County, Philadelphia, PA.

52.222-26 EQUAL OPPORTUNITY (APR 2002)

(a) Definition. United States, as used in this clause, means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.

(b) If, during any 12-month period (including the 12 months preceding the award of this contract), the Contractor has been or is awarded nonexempt Federal contracts and/or subcontracts that have an aggregate value in excess of \$10,000, the Contractor shall comply with paragraphs (b)(1) through (b)(11) of this clause, except for work performed outside the United States by employees who were not recruited within the United States. Upon request, the Contractor shall provide information necessary to determine the applicability of this clause.

(1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. However, it shall not be a violation of this clause for the Contractor to extend a publicly announced preference in employment to Indians living on or near an Indian reservation, in connection with employment opportunities on or near an Indian reservation, as permitted by 41 CFR 60-1.5.

(2) The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. This shall include, but not be limited to, (i) employment, (ii) upgrading, (iii) demotion, (iv) transfer, (v) recruitment or recruitment advertising, (vi) layoff or termination, (vii) rates of pay or other forms of compensation, and (viii) selection for training, including apprenticeship.

(3) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.

(4) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(5) The Contractor shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.

(6) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.

(7) The Contractor shall furnish to the contracting agency all information required by Executive Order 11246, as amended, and by the rules, regulations, and orders of the Secretary of Labor. The Contractor shall also file Standard Form 100 (EEO-1), or any successor form, as prescribed in 41 CFR part 60-1. Unless the Contractor has filed within the 12 months preceding the date of contract award, the Contractor shall, within 30 days after contract award, apply to either the regional Office of Federal Contract Compliance Programs (OFCCP) or the local office of the Equal Employment Opportunity Commission for the necessary forms.

(8) The Contractor shall permit access to its premises, during normal business hours, by the contracting agency or the OFCCP for the purpose of conducting on-site compliance evaluations and complaint investigations. The Contractor shall permit the Government to inspect and copy any books, accounts, records (including computerized records), and other material that may be relevant to the matter under investigation and pertinent to compliance with Executive Order 11246, as amended, and rules and regulations that implement the Executive Order.

(9) If the OFCCP determines that the Contractor is not in compliance with this clause or any rule, regulation, or order of the Secretary of Labor, this contract may be canceled, terminated, or

suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts, under the procedures authorized in Executive Order 11246, as amended. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended; in the rules, regulations, and orders of the Secretary of Labor; or as otherwise provided by law.

(10) The Contractor shall include the terms and conditions of subparagraphs (b)(1) through (11) of this clause in every subcontract or purchase order that is not exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor.

(11) The Contractor shall take such action with respect to any subcontract or purchase order as the contracting officer may direct as a means of enforcing these terms and conditions, including sanctions for noncompliance; provided, that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of any direction, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

(c) Notwithstanding any other clause in this contract, disputes relative to this clause will be governed by the procedures in 41 CFR 60-1.1.

52.222-27 AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION (FEB 1999)

(a) Definitions. "Covered area," as used in this clause, means the geographical area described in the solicitation for this contract.

"Deputy Assistant Secretary," as used in this clause, means Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, or a designee.

"Employer's identification number," as used in this clause, means the Federal Social Security number used on the employer's quarterly federal tax return, U.S. Treasury Department Form 941.

"Minority," as used in this clause, means--

(1) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

(2) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands);

(3) Black (all persons having origins in any of the black African racial groups not of Hispanic origin); and

(4) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race).

(b) If the Contractor, or a subcontractor at any tier, subcontracts a portion of the work involving any construction trade, each such subcontract in excess of \$10,000 shall include this clause and the Notice containing the goals for minority and female participation stated in the solicitation for this contract.

(c) If the Contractor is participating in a Hometown Plan (41 CFR 60-4) approved by the U.S. Department of Labor in a covered area, either individually or through an association, its affirmative action obligations on all work in the plan area (including goals) shall comply with the plan for those trades that have unions participating in the plan. Contractors must be able to demonstrate participation in, and compliance with, the provisions of the plan. Each Contractor or subcontractor participating in an approved plan is also required to comply with its obligations under the Equal Opportunity clause, and to make a good faith effort to achieve each goal under the plan in each trade in which it has employees. The overall good-faith performance by other Contractors or subcontractors toward a goal in an approved plan does not excuse any Contractor's or subcontractor's failure to make good-faith efforts to achieve the plan's goals.

(d) The Contractor shall implement the affirmative action procedures in subparagraphs (g)(1) through (16) of this clause. The goals stated in the solicitation for this contract are expressed as percentages of the total hours of employment and training of minority and female utilization that the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for the geographical area where that work is actually performed. The Contractor is expected to make substantially uniform progress toward its goals in each craft.

(e) Neither the terms and conditions of any collective bargaining agreement, nor the failure by a union with which the Contractor has a collective bargaining agreement, to refer minorities or women shall excuse the Contractor's obligations under this clause, Executive Order 11246, as amended, or the regulations thereunder.

(f) In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

(g) The Contractor shall take affirmative action to ensure equal employment opportunity. The evaluation of the Contractor's compliance with this clause shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and implement affirmative action steps at least as extensive as the following:

(1) Ensure a working environment free of harassment, intimidation, and coercion at all sites and

in all facilities where the Contractor's employees are assigned to work. The Contractor, if possible, will assign two or more women to each construction project. The Contractor shall ensure that foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at these sites or facilities.

(2) Establish and maintain a current list of sources for minority and female recruitment. Provide written notification to minority and female recruitment sources and community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

(3) Establish and maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant, referrals of minorities or females from unions, recruitment sources, or community organizations, and the action taken with respect to each individual. If an individual was sent to the union hiring hall for referral and not referred back to the Contractor by the union or, if referred back, not employed by the Contractor, this shall be documented in the file, along with whatever additional actions the Contractor may have taken.

(4) Immediately notify the Deputy Assistant Secretary when the union or unions with which the Contractor has a collective bargaining agreement has not referred back to the Contractor a minority or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

(5) Develop on-the-job training opportunities and/or participate in training programs for the area that expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under subparagraph (g)(2) of this clause.

(6) Disseminate the Contractor's equal employment policy by--

(i) Providing notice of the policy to unions and to training, recruitment, and outreach programs, and requesting their cooperation in assisting the Contractor in meeting its contract obligations;

(ii) Including the policy in any policy manual and in collective bargaining agreements;

(iii) Publicizing the policy in the company newspaper, annual report, etc.;

(iv) Reviewing the policy with all management personnel and with all minority and female employees at least once a year; and

(v) Posting the policy on bulletin boards accessible to employees at each location where construction work is performed.

(7) Review, at least annually, the Contractor's equal employment policy and affirmative action

obligations with all employees having responsibility for hiring, assignment, layoff, termination, or other employment decisions. Conduct review of this policy with all on-site supervisory personnel before initiating construction work at a job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

(8) Disseminate the Contractor's equal employment policy externally by including it in any advertising in the news media, specifically including minority and female news media. Provide written notification to, and discuss this policy with, other Contractors and subcontractors with which the Contractor does or anticipates doing business.

(9) Direct recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students, and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than 1 month before the date for acceptance of applications for apprenticeship or training by any recruitment source, send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

(10) Encourage present minority and female employees to recruit minority persons and women. Where reasonable, provide after-school, summer, and vacation employment to minority and female youth both on the site and in other areas of the Contractor's workforce.

(11) Validate all tests and other selection requirements where required under 41 CFR 60-3.

(12) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities. Encourage these employees to seek or to prepare for, through appropriate training, etc., opportunities for promotion.

(13) Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the Contractor's obligations under this contract are being carried out.

(14) Ensure that all facilities and company activities are nonsegregated except that separate or single-user rest rooms and necessary dressing or sleeping areas shall be provided to assure privacy between the sexes.

(15) Maintain a record of solicitations for subcontracts for minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

(16) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's equal employment policy and affirmative action obligations.

(h) The Contractor is encouraged to participate in voluntary associations that may assist in fulfilling one or more of the affirmative action obligations contained in subparagraphs (g)(1)

through (16) of this clause. The efforts of a contractor association, joint contractor-union, contractor-community, or similar group of which the contractor is a member and participant may be asserted as fulfilling one or more of its obligations under subparagraphs (g)(1) through (16) of this clause, provided the Contractor--

- (1) Actively participates in the group;
- (2) Makes every effort to ensure that the group has a positive impact on the employment of minorities and women in the industry;
- (3) Ensures that concrete benefits of the program are reflected in the Contractor's minority and female workforce participation;
- (4) Makes a good-faith effort to meet its individual goals and timetables; and
- (5) Can provide access to documentation that demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply is the Contractor's, and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
 - (i) A single goal for minorities and a separate single goal for women shall be established. The Contractor is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and nonminority. Consequently, the Contractor may be in violation of Executive Order 11246, as amended, if a particular group is employed in a substantially disparate manner.
 - (j) The Contractor shall not use goals or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
 - (k) The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts under Executive Order 11246, as amended.
 - (l) The Contractor shall carry out such sanctions and penalties for violation of this clause and of the Equal Opportunity clause, including suspension, termination, and cancellation of existing subcontracts, as may be imposed or ordered under Executive Order 11246, as amended, and its implementing regulations, by the OFCCP. Any failure to carry out these sanctions and penalties as ordered shall be a violation of this clause and Executive Order 11246, as amended.
 - (m) The Contractor in fulfilling its obligations under this clause shall implement affirmative action procedures at least as extensive as those prescribed in paragraph (g) of this clause, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of Executive Order 11246, as amended, the implementing regulations, or this clause, the Deputy Assistant Secretary shall take action as prescribed in 41 CFR 60-4.8.
 - (n) The Contractor shall designate a responsible official to--

(1) Monitor all employment-related activity to ensure that the Contractor's equal employment policy is being carried out;

(2) Submit reports as may be required by the Government; and

(3) Keep records that shall at least include for each employee the name, address, telephone number, construction trade, union affiliation (if any), employee identification number, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, separate records are not required to be maintained.

Nothing contained herein shall be construed as a limitation upon the application of other laws that establish different standards of compliance or upon the requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

52.222-35 AFFIRMATIVE ACTION FOR DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA (APR 1998)

(a)) Definitions. As used in this clause--

All employment openings includes all positions except executive and top management, those positions that will be filled from within the contractor's organization, and positions lasting 3 days or less. This term includes full-time employment, temporary employment of more than 3 days' duration, and part-time employment.

Appropriate office of the State employment service system means the local office of the Federal-State national system of public employment offices with assigned responsibility to serve the area where the employment opening is to be filled, including the District of Columbia, Guam, the Commonwealth of Puerto Rico, and the Virgin Islands.

Positions that will be filled from within the Contractor's organization means employment openings for which no consideration will be given to persons outside the Contractor's organization (including any affiliates, subsidiaries, and parent companies) and includes any openings that the Contractor proposes to fill from regularly established "recall" lists. The exception does not apply to a particular opening once an employer decides to consider applicants outside of its organization.

Veteran of the Vietnam era means a person who--

(1) Served on active duty for a period of more than 180 days, any part of which occurred between August 5, 1964, and May 7, 1975, and was discharged or released therefrom with other than a dishonorable discharge; or

(2) Was discharged or released from active duty for a service-connected disability if any part of such active duty was performed between August 5, 1964, and May 7, 1975.

(b) General. (1) Regarding any position for which the employee or applicant for employment is qualified, the Contractor shall not discriminate against the individual because the individual is a disabled veteran or a veteran of the Vietnam era. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified disabled veterans and veterans of the Vietnam era without discrimination based upon their disability or veterans' status in all employment practices such as--

- (i) Employment;
- (ii) Upgrading;
- (iii) Demotion or transfer;
- (iv) Recruitment;
- (v) Advertising;
- (vi) Layoff or termination;
- (vii) Rates of pay or other forms of compensation; and
- (viii) Selection for training, including apprenticeship.

(2) The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor (Secretary) issued under the Vietnam Era Veterans' Readjustment Assistance Act of 1972 (the Act), as amended.

(c) Listing openings. (1) The Contractor agrees to list all employment openings existing at contract award or occurring during contract performance, at an appropriate office of the State employment service system in the locality where the opening occurs. These openings include those occurring at any Contractor facility, including one not connected with performing this contract. An independent corporate affiliate is exempt from this requirement.

(2) State and local government agencies holding Federal contracts of \$10,000 or more shall also list all their employment openings with the appropriate office of the State employment service.

(3) The listing of employment openings with the State employment service system is required at least concurrently with using any other recruitment source or effort and involves the obligations of placing a bona fide job order, including accepting referrals of veterans and nonveterans. This listing does not require hiring any particular job applicant or hiring from any particular group of job applicants and is not intended to relieve the Contractor from any requirements of Executive orders or regulations concerning nondiscrimination in employment.

(4) Whenever the Contractor becomes contractually bound to the listing terms of this clause, it shall advise the State employment service system, in each State where it has establishments, of the name and location of each hiring location in the State. As long as the Contractor is contractually bound to these terms and has so advised the State system, it need not advise the State system of subsequent contracts. The Contractor may advise the State system when it is no longer bound by this contract clause.

(d) Applicability. This clause does not apply to the listing of employment openings that occur and are filled outside the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, and the Virgin Islands.

(e) Postings. (1) The Contractor agrees to post employment notices stating (i) the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam era, and (ii) the rights of applicants and employees.

(2) These notices shall be posted in conspicuous places that are available to employees and applicants for employment. They shall be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance Programs, Department of Labor (Deputy Assistant Secretary), and provided by or through the Contracting Officer.

(3) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of the Act, and is committed to take affirmative action to employ, and advance in employment, qualified disabled veterans and veterans of the Vietnam Era.

(f) Noncompliance. If the Contractor does not comply with the requirements of this clause, appropriate actions may be taken under the rules, regulations, and relevant orders of the Secretary issued pursuant to the Act.

(g) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order of \$10,000 or more unless exempted by rules, regulations, or orders of the Secretary. The Contractor shall act as specified by the Deputy Assistant Secretary to enforce the terms, including action for noncompliance.

52.222-36 AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES (JUN 1998)

(a) General. (1) Regarding any position for which the employee or applicant for employment is qualified, the Contractor shall not discriminate against any employee or applicant because of physical or mental disability. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified individuals with disabilities without discrimination based upon their physical or mental disability in all employment practices such as--

- (i) Recruitment, advertising, and job application procedures;
 - (ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff, and rehiring;
 - (iii) Rates of pay or any other form of compensation and changes in compensation;
 - (iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;
 - (v) Leaves of absence, sick leave, or any other leave;
 - (vi) Fringe benefits available by virtue of employment, whether or not administered by the Contractor;
 - (vii) Selection and financial support for training, including apprenticeships, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;
 - (viii) Activities sponsored by the Contractor, including social or recreational programs; and
 - (ix) Any other term, condition, or privilege of employment.
- (2) The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor (Secretary) issued under the Rehabilitation Act of 1973 (29 U.S.C. 793) (the Act), as amended.
- (b) Postings. (1) The Contractor agrees to post employment notices stating--
- (i) The Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified individuals with disabilities; and
 - (ii) The rights of applicants and employees.
- (2) These notices shall be posted in conspicuous places that are available to employees and applicants for employment. The Contractor shall ensure that applicants and employees with disabilities are informed of the contents of the notice (e.g., the Contractor may have the notice read to a visually disabled individual, or may lower the posted notice so that it might be read by a person in a wheelchair). The notices shall be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance of the U.S. Department of Labor (Deputy Assistant Secretary) and shall be provided by or through the Contracting Officer.
- (3) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of Section 503 of the Act and is committed to take affirmative action to employ, and advance in employment, qualified individuals with physical or mental disabilities.

(c) Noncompliance. If the Contractor does not comply with the requirements of this clause, appropriate actions may be taken under the rules, regulations, and relevant orders of the Secretary issued pursuant to the Act.

(d) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order in excess of \$10,000 unless exempted by rules, regulations, or orders of the Secretary. The Contractor shall act as specified by the Deputy Assistant Secretary to enforce the terms, including action for noncompliance.

52.222-37 EMPLOYMENT REPORTS ON DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA (JAN 1999)

(a) Unless the Contractor is a State or local government agency, the Contractor shall report at least annually, as required by the Secretary of Labor, on--

(1) The number of disabled veterans and the number of veterans of the Vietnam era in the workforce of the contractor by job category and hiring location; and

(2) The total number of new employees hired during the period covered by the report, and of that total, the number of disabled veterans, and the number of veterans of the Vietnam era.

(b) The above items shall be reported by completing the form entitled "Federal Contractor Veterans' Employment Report VETS-100."

(c) Reports shall be submitted no later than September 30 of each year beginning September 30, 1988.

(d) The employment activity report required by paragraph (a)(2) of this clause shall reflect total hires during the most recent 12-month period as of the ending date selected for the employment profile report required by paragraph (a)(1) of this clause. Contractors may select an ending date: (1) As of the end of any pay period during the period January through March 1st of the year the report is due, or (2) as of December 31, if the contractor has previous written approval from the Equal Employment Opportunity Commission to do so for purposes of submitting the Employer Information Report EEO-1 (Standard Form 100).

(e) The count of veterans reported according to paragraph (a) of this clause shall be based on voluntary disclosure. Each Contractor subject to the reporting requirements at 38 U.S.C. 4212 shall invite all disabled veterans and veterans of the Vietnam era who wish to benefit under the affirmative action program at 38 U.S.C. 4212 to identify themselves to the Contractor. The invitation shall state that the information is voluntarily provided; that the information will be kept confidential; that disclosure or refusal to provide the information will not subject the applicant or employee to any adverse treatment; and that the information will be used only in accordance with the regulations promulgated under 38 U.S.C. 4212.

(f) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order of \$10,000 or more unless exempted by rules, regulations, or orders of the Secretary.

52.223-14 TOXIC CHEMICAL RELEASE REPORTING (OCT 2000)

(a) Unless otherwise exempt, the Contractor, as owner or operator of a facility used in the performance of this contract, shall file by July 1 for the prior calendar year an annual Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023(a) and (g)), and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106). The Contractor shall file, for each facility subject to the Form R filing and reporting requirements, the annual Form R throughout the life of the contract.

(b) A Contractor owned or operated facility used in the performance of this contract is exempt from the requirement to file an annual Form R if--

(1) The facility does not manufacture, process, or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

(2) The facility does not have 10 or more full-time employees as specified in section 313(b)(1)(A) of EPCRA, 42 U.S.C. 11023(b)(1)(A);

(3) The facility does not meet the reporting thresholds of toxic chemicals established under of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

(4) The facility does not fall within Standard Industrial Classification Code (SIC) major groups 20 through 39 or their corresponding North American Industry Classification System (NAICS) sectors 31 through 33; or

(5) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

(c) If the Contractor has certified to an exemption in accordance with one or more of the criteria in paragraph (b) of this clause, and after award of the contract circumstances change so that any of its owned or operated facilities used in the performance of this contract is no longer exempt--

(1) The Contractor shall notify the Contracting Officer; and

(2) The Contractor, as owner or operator of a facility used in the performance of this contract that is no longer exempt, shall (i) submit a Toxic Chemical Release Inventory Form (Form R) on or

before July 1 for the prior calendar year during which the facility becomes eligible; and (ii) continue to file the annual Form R for the life of the contract for such facility.

(d) The Contracting Officer may terminate this contract or take other action as appropriate, if the Contractor fails to comply accurately and fully with the EPCRA and PPA toxic chemical release filing and reporting requirements.

(e) Except for acquisitions of commercial items, as defined in FAR Part 2, the Contractor shall--

(1) For competitive subcontracts expected to exceed \$100,000 (including all options), include a solicitation provision substantially the same as the provision at FAR 52.223-13, Certification of Toxic Chemical Release Reporting; and

(2) Include in any resultant subcontract exceeding \$100,000 (including all options), the substance of this clause, except this paragraph (e).

52.225-9 BUY AMERICAN ACT—CONSTRUCTION MATERIALS (MAY 2002)

(a) Definitions. As used in this clause--

Component means an article, material, or supply incorporated directly into a construction material.

Construction material means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

Cost of components means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the end product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

Domestic construction material means--

- (1) An unmanufactured construction material mined or produced in the United States; or
- (2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

Foreign construction material means a construction material other than a domestic construction material.

United States means the 50 States and the District of Columbia, U.S. territories and possessions, Puerto Rico, the Northern Mariana Islands, and any other place subject to U.S. jurisdiction, but does not include leased bases.

(b) Domestic preference. (1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) by providing a preference for domestic construction material. The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to the construction material or components listed by the Government as follows: NONE

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

- (C) Quantity;
 - (D) Price;
 - (E) Time of delivery or availability;
 - (F) Location of the construction project;
 - (G) Name and address of the proposed supplier; and
 - (H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.
- (ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.
 - (iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).
 - (iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.
- (2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.
- (3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.
- (d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars)

\1\			

Item 1			
Foreign construction material....			

Domestic construction material... ..
 Item 2
 Foreign construction material.... ..
 Domestic construction material... ..

Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).

List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.

Include other applicable supporting information.

52.225-13 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (JUL 2000)

(a) The Contractor shall not acquire, for use in the performance of this contract, any supplies or services originating from sources within, or that were located in or transported from or through, countries whose products are banned from importation into the United States under regulations of the Office of Foreign Assets Control, Department of the Treasury. Those countries are Cuba, Iran, Iraq, Libya, North Korea, Sudan, the territory of Afghanistan controlled by the Taliban, and Serbia (excluding the territory of Kosovo).

(b) The Contractor shall not acquire for use in the performance of this contract any supplies or services from entities controlled by the government of Iraq.

(c) The Contractor shall insert this clause, including this paragraph (c), in all subcontracts.

52.226-1 UTILIZATION OF INDIAN ORGANIZATIONS AND INDIAN-OWNED ECONOMIC ENTERPRISES (JUN 2000)

(a) Definitions. As used in this clause:

"Indian" means any person who is a member of any Indian tribe, band, group, pueblo or community that is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs (BIA) in accordance with 25 U.S.C. 1452(c) and any "Native" as defined in the Alaska Native Claims Settlement Act (43 U.S.C. 1601).

"Indian organization" means the governing body of any Indian tribe or entity established or recognized by the governing body of an Indian tribe for the purposes of 25 U.S.C., chapter 17.

"Indian-owned economic enterprise" means any Indian-owned (as determined by the Secretary of the Interior) commercial, industrial, or business activity established or organized for the purpose of profit, provided that Indian ownership constitute not less than 51 percent of the enterprise.

"Indian tribe" means any Indian tribe, band, group, pueblo or community, including native villages and native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, that is recognized by the Federal Government as eligible for services from BIA in accordance with 25 U.S.C. 1542(c).

"Interested party" means a prime contractor or an actual or prospective offeror whose direct economic interest would be affected by the award of a subcontract or by the failure to award a subcontract.

(b) The Contractor shall use its best efforts to give Indian organizations and Indian-owned economic enterprises (25 U.S.C. 1544) the maximum practicable opportunity to participate in the subcontracts it awards to the fullest extent consistent with efficient performance of its contract.

(1) The Contracting Officer and the Contractor, acting in good faith, may rely on the representation of an Indian organization or Indian-owned economic enterprise as to its eligibility, unless an interested party challenges its status or the Contracting Officer has independent reason to question that status. In the event of a challenge to the representation of a subcontractor, the Contracting Officer will refer the matter to the U.S. Department of the Interior, Bureau of Indian Affairs (BIA), Attn: Chief, Division of Contracting and Grants Administration, 1849 C Street, NW., MS 2626-MIB, Washington, DC 20240-4000.

The BIA will determine the eligibility and notify the Contracting Officer. No incentive payment will be made within 50 working days of subcontract award or while a challenge is pending. If a subcontractor is determined to be an ineligible participant, no incentive payment will be made under the Indian Incentive Program.

(2) The Contractor may request an adjustment under the Indian Incentive Program to the following:

- (i) The estimated cost of a cost-type contract.
- (ii) The target cost of a cost-plus-incentive-fee prime contract.
- (iii) The target cost and ceiling price of a fixed-price incentive prime contract.
- (iv) The price of a firm-fixed-price prime contract.

(3) The amount of the adjustment to the prime contract is 5 percent of the estimated cost, target cost, or firm-fixed-price included in the subcontract initially awarded to the Indian organization or Indian-owned economic enterprise.

(4) The Contractor has the burden of proving the amount claimed and must assert its request for an adjustment prior to completion of contract performance.

(c) The Contracting Officer, subject to the terms and conditions of the contract and the availability of funds, will authorize an incentive payment of 5 percent of the amount paid to the subcontractor. The Contracting Officer will seek funding in accordance with agency procedures.

52.227-1 AUTHORIZATION AND CONSENT (JUL 1995)

(a) The Government authorizes and consents to all use and manufacture, in performing this contract or any subcontract at any tier, of any invention described in and covered by a United States patent (1) embodied in the structure or composition of any article the delivery of which is accepted by the Government under this contract or (2) used in machinery, tools, or methods whose use necessarily results from compliance by the Contractor or a subcontractor with (i) specifications or written provisions forming a part of this contract or (ii) specific written instructions given by the Contracting Officer directing the manner of performance. The entire liability to the Government for infringement of a patent of the United States shall be determined solely by the provisions of the indemnity clause, if any, included in this contract or any subcontract hereunder (including any lower-tier subcontract), and the Government assumes liability for all other infringement to the extent of the authorization and consent hereinabove granted.

(b) The Contractor agrees to include, and require inclusion of, this clause, suitably modified to identify the parties, in all subcontracts at any tier for supplies or services (including construction, architect-engineer services, and materials, supplies, models, samples, and design or testing services expected to exceed the simplified acquisition threshold (however, omission of this clause from any subcontract, including those at or below the simplified acquisition threshold, does not affect this authorization and consent.)

52.227-2 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (AUG 1996)

(a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Contractor has knowledge.

(b) In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed under this contract, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the Contractor has agreed to indemnify the Government.

(d) The Contractor agrees to include, and require inclusion of, this clause in all subcontracts at

any tier for supplies or services (including construction and architect-engineer subcontracts and those for material, supplies, models, samples, or design or testing services) expected to exceed the simplified acquisition threshold at (FAR) 2.101 to exceed the dollar amount set forth in 13.000 of the Federal Acquisition Regulation (FAR).

52.227-4 PATENT INDEMNITY--CONSTRUCTION CONTRACTS (APR 1984)

Except as otherwise provided, the Contractor agrees to indemnify the Government and its officers, agents, and employees against liability, including costs and expenses, for infringement upon any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. 181) arising out of performing this contract or out of the use or disposal by or for the account of the Government of supplies furnished or work performed under this contract.

52.228-1 BID GUARANTEE (SEP 1996)

(a) Failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.

(b) The bidder shall furnish a bid guarantee in the form of a firm commitment, e.g., bid bond supported by good and sufficient surety or sureties acceptable to the Government, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. The Contracting Officer will return bid guarantees, other than bid bonds, (1) to unsuccessful bidders as soon as practicable after the opening of bids, and (2) to the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.-

(c) The amount of the bid guarantee shall be _____ percent of the bid price or \$ _____, whichever is less.-

(d) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or furnish executed bond(s) within 10 days after receipt of the forms by the bidder, the Contracting Officer may terminate the contract for default.-

(e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee is available to offset the difference.

52.228-11 PLEDGES OF ASSETS (FEB 1992)

(a) Offerors shall obtain from each person acting as an individual surety on a bid guarantee, a performance bond, or a payment bond--

(1) Pledge of assets; and

(2) Standard Form 28, Affidavit of Individual Surety.

(b) Pledges of assets from each person acting as an individual surety shall be in the form of--

(1) Evidence of an escrow account containing cash, certificates of deposit, commercial or Government securities, or other assets described in FAR 28.203-2 (except see 28.203-2(b)(2) with respect to Government securities held in book entry form) and/or;

(2) A recorded lien on real estate. The offeror will be required to provide--

(i) Evidence of title in the form of a certificate of title prepared by a title insurance company approved by the United States Department of Justice. This title evidence must show fee simple title vested in the surety along with any concurrent owners; whether any real estate taxes are due and payable; and any recorded encumbrances against the property, including the lien filed in favor of the Government as required by FAR 28.203-3(d);

(ii) Evidence of the amount due under any encumbrance shown in the evidence of title;

(iii) A copy of the current real estate tax assessment of the property or a current appraisal dated no earlier than 6 months prior to the date of the bond, prepared by a professional appraiser who certifies that the appraisal has been conducted in accordance with the generally accepted appraisal standards as reflected in the Uniform Standards of Professional Appraisal Practice, as promulgated by the Appraisal Foundation.

52.228-14 IRREVOCABLE LETTER OF CREDIT (DEC 1999)

(a) "Irrevocable letter of credit" (ILC), as used in this clause, means a written commitment by a federally insured financial institution to pay all or part of a stated amount of money, until the expiration date of the letter, upon presentation by the Government (the beneficiary) of a written demand therefor. Neither the financial institution nor the offeror/Contractor can revoke or condition the letter of credit.

(b) If the offeror intends to use an ILC in lieu of a bid bond, or to secure other types of bonds such as performance and payment bonds, the letter of credit and letter of confirmation formats in paragraphs (e) and (f) of this clause shall be used.

(c) The letter of credit shall be irrevocable, shall require presentation of no document other than a written demand and the ILC (including confirming letter, if any), shall be issued/confirmed by an acceptable federally insured financial institution as provided in paragraph (d) of this clause,

and--

(1) If used as a bid guarantee, the ILC shall expire no earlier than 60 days after the close of the bid acceptance period;

(2) If used as an alternative to corporate or individual sureties as security for a performance or payment bond, the offeror/Contractor may submit an ILC with an initial expiration date estimated to cover the entire period for which financial security is required or may submit an ILC with an initial expiration date that is a minimum period of one year from the date of issuance. The ILC shall provide that, unless the issuer provides the beneficiary written notice of non-renewal at least 60 days in advance of the current expiration date, the ILC is automatically extended without amendment for one year from the expiration date, or any future expiration date, until the period of required coverage is completed and the Contracting Officer provides the financial institution with a written statement waiving the right to payment. The period of required coverage shall be:

(i) For contracts subject to the Miller Act, the later of--

(A) One year following the expected date of final payment;

(B) For performance bonds only, until completion of any warranty period; or

(C) For payment bonds only, until resolution of all claims filed against the payment bond during the one-year period following final payment.

(ii) For contracts not subject to the Miller Act, the later of--

(A) 90 days following final payment; or

(B) For performance bonds only, until completion of any warranty period.

(d) Only federally insured financial institutions rated investment grade or higher shall issue or confirm the ILC. The offeror/Contractor shall provide the Contracting Officer a credit rating that indicates the financial institution has the required rating(s) as of the date of issuance of the ILC. Unless the financial institution issuing the ILC had letter of credit business of less than \$25 million in the past year, ILCs over \$5 million must be confirmed by another acceptable financial institution that had letter of credit business of less than \$25 million in the past year.

(e) The following format shall be used by the issuing financial institution to create an ILC:

[Issuing Financial Institution's Letterhead or Name and Address]

Issue Date _____

IRREVOCABLE LETTER OF CREDIT NO. _____

Account party's name _____

Account party's address _____

For Solicitation No. _____ (for reference only)

TO: [U.S. Government agency]

[U.S. Government agency's address]

1. We hereby establish this irrevocable and transferable Letter of Credit in your favor for one or more drawings up to United States \$ _____. This Letter of Credit is payable at [issuing financial institution's and, if any, confirming financial institution's] office at [issuing financial institution's address and, if any, confirming financial institution's address] and expires with our close of business on _____, or any automatically extended expiration date.

2. We hereby undertake to honor your or the transferee's sight draft(s) drawn on the issuing or, if any, the confirming financial institution, for all or any part of this credit if presented with this Letter of Credit and confirmation, if any, at the office specified in paragraph 1 of this Letter of Credit on or before the expiration date or any automatically extended expiration date.

3. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for one year from the expiration date hereof, or any future expiration date, unless at least 60 days prior to any expiration date, we notify you or the transferee by registered mail, or other receipted means of delivery, that we elect not to consider this Letter of Credit renewed for any such additional period. At the time we notify you, we also agree to notify the account party (and confirming financial institution, if any) by the same means of delivery.

4. This Letter of Credit is transferable. Transfers and assignments of proceeds are to be effected without charge to either the beneficiary or the transferee/assignee of proceeds. Such transfer or assignment shall be only at the written direction of the Government (the beneficiary) in a form satisfactory to the issuing financial institution and the confirming financial institution, if any.

5. This Letter of Credit is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of _____ [state of confirming financial institution, if any, otherwise state of issuing financial institution].

6. If this credit expires during an interruption of business of this financial institution as described in Article 17 of the UCP, the financial institution specifically agrees to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

[Issuing financial institution]

(f) The following format shall be used by the financial institution to confirm an ILC:

[Confirming Financial Institution's Letterhead or Name and Address]

(Date) _____

Our Letter of Credit Advice Number _____

Beneficiary: _____ [U.S. Government agency]

Issuing Financial Institution: _____

Issuing Financial Institution's LC No.: _____

Gentlemen:

1. We hereby confirm the above indicated Letter of Credit, the original of which is attached, issued by _____ [name of issuing financial institution] for drawings of up to United States dollars _____/U.S. \$_____ and expiring with our close of business on _____ [the expiration date], or any automatically extended expiration date.

2. Draft(s) drawn under the Letter of Credit and this Confirmation are payable at our office located at _____.

3. We hereby undertake to honor sight draft(s) drawn under and presented with the Letter of Credit and this Confirmation at our offices as specified herein.

4. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this confirmation that it be deemed automatically extended without amendment for one year from the expiration date hereof, or any automatically extended expiration date, unless:

(a) At least 60 days prior to any such expiration date, we shall notify the Contracting Officer, or the transferee and the issuing financial institution, by registered mail or other receipted means of delivery, that we elect not to consider this confirmation extended for any such additional period; or

(b) The issuing financial institution shall have exercised its right to notify you or the transferee, the account party, and ourselves, of its election not to extend the expiration date of the Letter of

Credit.

5. This confirmation is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of _____ [state of confirming financial institution].

6. If this confirmation expires during an interruption of business of this financial institution as described in Article 17 of the UCP, we specifically agree to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

[Confirming financial institution]

(g) The following format shall be used by the Contracting Officer for a sight draft to draw on the Letter of Credit:

SIGHT DRAFT

[City, State]

(Date) _____

[Name and address of financial institution]

Pay to the order of _____ [Beneficiary Agency] _____ the sum of United States \$ _____. This draft is drawn under Irrevocable Letter of Credit No.

_____.

[Beneficiary Agency]

By: _____

52.229-3 FEDERAL, STATE, AND LOCAL TAXES (JAN 1991)

(a) "Contract date," as used in this clause, means the date set for bid opening or, if this is a

negotiated contract or a modification, the effective date of this contract or modification.

"All applicable Federal, State, and local taxes and duties," as used in this clause, means all taxes and duties, in effect on the contract date, that the taxing authority is imposing and collecting on the transactions or property covered by this contract.

"After-imposed Federal tax," as used in this clause, means any new or increased Federal excise tax or duty, or tax that was exempted or excluded on the contract date but whose exemption was later revoked or reduced during the contract period, on the transactions or property covered by this contract that the Contractor is required to pay or bear as the result of legislative, judicial, or administrative action taking effect after the contract date. It does not include social security tax or other employment taxes.

"After-relieved Federal tax," as used in this clause, means any amount of Federal excise tax or duty, except social security or other employment taxes, that would otherwise have been payable on the transactions or property covered by this contract, but which the Contractor is not required to pay or bear, or for which the Contractor obtains a refund or drawback, as the result of legislative, judicial, or administrative action taking effect after the contract date.

- (b) The contract price includes all applicable Federal, State, and local taxes and duties.
- (c) The contract price shall be increased by the amount of any after-imposed Federal tax, provided the Contractor warrants in writing that no amount for such newly imposed Federal excise tax or duty or rate increase was included in the contract price, as a contingency reserve or otherwise.
- (d) The contract price shall be decreased by the amount of any after-relieved Federal tax.
- (e) The contract price shall be decreased by the amount of any Federal excise tax or duty, except social security or other employment taxes, that the Contractor is required to pay or bear, or does not obtain a refund of, through the Contractor's fault, negligence, or failure to follow instructions of the Contracting Officer.
- (f) No adjustment shall be made in the contract price under this clause unless the amount of the adjustment exceeds \$250.
- (g) The Contractor shall promptly notify the Contracting Officer of all matters relating to any Federal excise tax or duty that reasonably may be expected to result in either an increase or decrease in the contract price and shall take appropriate action as the Contracting Officer directs.
- (h) The Government shall, without liability, furnish evidence appropriate to establish exemption from any Federal, State, or local tax when the Contractor requests such evidence and a reasonable basis exists to sustain the exemption.

52.232-5 PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS (MAY

1997)

(a) Payment of price. The Government shall pay the Contractor the contract price as provided in this contract.

(b) Progress payments. The Government shall make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer.

(1) The Contractor's request for progress payments shall include the following substantiation:

(i) An itemization of the amounts requested, related to the various elements of work required by the contract covered by the payment requested.

(ii) A listing of the amount included for work performed by each subcontractor under the contract.

(iii) A listing of the total amount of each subcontract under the contract.

(iv) A listing of the amounts previously paid to each such subcontractor under the contract.

(v) Additional supporting data in a form and detail required by the Contracting Officer.

(2) In the preparation of estimates, the Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at locations other than the site also may be taken into consideration if--

(i) Consideration is specifically authorized by this contract; and

(ii) The Contractor furnishes satisfactory evidence that it has acquired title to such material and that the material will be used to perform this contract.

(c) Contractor certification. Along with each request for progress payments, the Contractor shall furnish the following certification, or payment shall not be made: (However, if the Contractor elects to delete paragraph (c)(4) from the certification, the certification is still acceptable.)

I hereby certify, to the best of my knowledge and belief, that--

(1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;

(2) Payments to subcontractors and suppliers have been made from previous payments received under the contract, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and the requirements of chapter 39 of Title 31, United States Code;

(3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract; and

(4) This certification is not to be construed as final acceptance of a subcontractor's performance.

(Name)

(Title)

(Date)

(d) Refund of unearned amounts. If the Contractor, after making a certified request for progress payments, discovers that a portion or all of such request constitutes a payment for performance by the Contractor that fails to conform to the specifications, terms, and conditions of this contract (hereinafter referred to as the "unearned amount"), the Contractor shall--

(1) Notify the Contracting Officer of such performance deficiency; and

(2) Be obligated to pay the Government an amount (computed by the Contracting Officer in the manner provided in paragraph (j) of this clause) equal to interest on the unearned amount from the 8th day after the date of receipt of the unearned amount until--

(i) The date the Contractor notifies the Contracting Officer that the performance deficiency has been corrected; or

(ii) The date the Contractor reduces the amount of any subsequent certified request for progress payments by an amount equal to the unearned amount.

(e) Retainage. If the Contracting Officer finds that satisfactory progress was achieved during any period for which a progress payment is to be made, the Contracting Officer shall authorize payment to be made in full. However, if satisfactory progress has not been made, the Contracting Officer may retain a maximum of 10 percent of the amount of the payment until satisfactory progress is achieved. When the work is substantially complete, the Contracting Officer may retain from previously withheld funds and future progress payments that amount the Contracting Officer considers adequate for protection of the Government and shall release to the Contractor all the remaining withheld funds. Also, on completion and acceptance of each separate building, public work, or other division of the contract, for which the price is stated separately in the contract, payment shall be made for the completed work without retention of a percentage.

(f) Title, liability, and reservation of rights. All material and work covered by progress payments made shall, at the time of payment, become the sole property of the Government, but this shall not be construed as--

(1) Relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or

(2) Waiving the right of the Government to require the fulfillment of all of the terms of the contract.

(g) Reimbursement for bond premiums. In making these progress payments, the Government shall, upon request, reimburse the Contractor for the amount of premiums paid for performance and payment bonds (including coinsurance and reinsurance agreements, when applicable) after the Contractor has furnished evidence of full payment to the surety. The retainage provisions in paragraph (e) of this clause shall not apply to that portion of progress payments attributable to bond premiums.

(h) Final payment. The Government shall pay the amount due the Contractor under this contract after--

(1) Completion and acceptance of all work;

(2) Presentation of a properly executed voucher; and

(3) Presentation of release of all claims against the Government arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned under the Assignment of Claims Act of 1940 (31 U.S.C. 3727 and 41 U.S.C. 15).

(i) Limitation because of undefinitized work. Notwithstanding any provision of this contract, progress payments shall not exceed 80 percent on work accomplished on undefinitized contract actions. A "contract action" is any action resulting in a contract, as defined in FAR Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes clause, or funding and other administrative changes.

(j) Interest computation on unearned amounts. In accordance with 31 U.S.C. 3903(c)(1), the amount payable under subparagraph (d)(2) of this clause shall be--

(1) Computed at the rate of average bond equivalent rates of 91-day Treasury bills auctioned at the most recent auction of such bills prior to the date the Contractor receives the unearned amount; and

(2) Deducted from the next available payment to the Contractor.

52.232-23 ASSIGNMENT OF CLAIMS (JAN 1986) - ALTERNATE I (APR 1984)

(a) The Contractor, under the Assignment of Claims Act, as amended, 31 U.S.C. 3727, 41 U.S.C. 15 (hereafter referred to as "the Act"), may assign its rights to be paid amounts due or to become due as a result of the performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency. The assignee under such an assignment may thereafter further assign or reassign its right under the original assignment to any type of financing institution described in the preceding sentence. Unless otherwise stated in this contract, payments to an assignee of any amounts due or to become due under this contract shall not, to the extent specified in the Act, be subject to reduction or setoff.

(b) Any assignment or reassignment authorized under the Act and this clause shall cover all unpaid amounts payable under this contract, and shall not be made to more than one party, except that an assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in the financing of this contract.

(c) The Contractor shall not furnish or disclose to any assignee under this contract any classified document (including this contract) or information related to work under this contract until the Contracting Officer authorizes such action in writing.

52.232-25 PROMPT PAYMENT (FEB 2002)

Notwithstanding any other payment clause in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer (EFT). Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a)(4) of this clause concerning payments due on Saturdays, Sundays, and legal holidays.)

(a) Invoice payments--(1) Due date. (i) Except as indicated in paragraphs (a)(2) and (c) of this clause, the due date for making invoice payments by the designated payment office is the later of the following two events:

(A) The 30th day after the designated billing office receives a proper invoice from the Contractor (except as provided in paragraph (a)(1)(ii) of this clause).

(B) The 30th day after Government acceptance of supplies delivered or services performed. For a final invoice, when the payment amount is subject to contract settlement actions, acceptance is deemed to occur on the effective date of the contract settlement.

(ii) If the designated billing office fails to annotate the invoice with the actual date of receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the Contractor's invoice, provided the designated billing office receives a proper invoice and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(2) Certain food products and other payments. (i) Due dates on Contractor invoices for meat, meat food products, or fish; perishable agricultural commodities; and dairy products, edible fats or oils, and food products prepared from edible fats or oils are--

(A) For meat or meat food products, as defined in section 2(a)(3) of the Packers and Stockyard Act of 1921 (7 U.S.C. 182(3)), and as further defined in Pub. L. 98-181, including any edible fresh or frozen poultry meat, any perishable poultry meat food product, fresh eggs, and any perishable egg product, as close as possible to, but not later than, the 7th day after product delivery.

(B) For fresh or frozen fish, as defined in section 204(3) of the Fish and Seafood Promotion Act of 1986 (16 U.S.C. 4003(3)), as close as possible to, but not later than, the 7th day after product delivery.

(C) For perishable agricultural commodities, as defined in section 1(4) of the Perishable Agricultural Commodities Act of 1930 (7 U.S.C. 499a(4)), as close as possible to, but not later than, the 10th day after product delivery, unless another date is specified in the contract.

(D) For dairy products, as defined in section 111(e) of the Dairy Production Stabilization Act of 1983 (7 U.S.C. 4502(e)), edible fats or oils, and food products prepared from edible fats or oils, as close as possible to, but not later than, the 10th day after the date on which a proper invoice has been received. Liquid milk, cheese, certain processed cheese products, butter, yogurt, ice cream, mayonnaise, salad dressings, and other similar products, fall within this classification. Nothing in the Act limits this classification to refrigerated products. When questions arise regarding the proper classification of a specific product, prevailing industry practices will be followed in specifying a contract payment due date. The burden of proof that a classification of a specific product is, in fact, prevailing industry practice is upon the Contractor making the representation.

(ii) If the contract does not require submission of an invoice for payment (e.g., periodic lease payments), the due date will be as specified in the contract.

(3) Contractor's invoice. The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(3)(i) through (a)(3)(x) of this clause. If the invoice does not comply with these requirements, the designated billing office will return it within 7 days after receipt (3 days for meat, meat food products, or fish; 5 days for perishable agricultural commodities, dairy products,

edible fats or oils, and food products prepared from edible fats or oils), with the reasons why it is not a proper invoice. The Government will take into account untimely notification when computing any interest penalty owed the Contractor.

(i) Name and address of the Contractor.

(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of the mailing or transmission.)

(iii) Contract number or other authorization for supplies delivered or services performed (including order number and contract line item number).

(iv) Description, quantity, unit of measure, unit price, and extended price of supplies delivered or services performed.

(v) Shipping and payment terms (e.g., shipment number and date of shipment, discount for prompt payment terms). Bill of lading number and weight of shipment will be shown for shipments on Government bills of lading.

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).

(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.

(viii) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(ix) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer), contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration, or 52.232-34, Payment by Electronic Funds Transfer--Other Than Central Contractor Registration), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(x) Any other information or documentation required by the contract (e.g., evidence of shipment).

(4) Interest penalty. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(4)(i) through (a)(4)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

(i) The designated billing office received a proper invoice.

(ii) The Government processed a receiving report or other Government documentation authorizing payment, and there was no disagreement over quantity, quality, or Contractor compliance with any contract term or condition.

(iii) In the case of a final invoice for any balance of funds due the Contractor for supplies delivered or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(5) Computing penalty amount. The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR part 1315.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor, Government acceptance is deemed to occur constructively on the 7th day (unless otherwise specified in this contract) after the Contractor delivers the supplies or performs the services in accordance with the terms and conditions of the contract, unless there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. If actual acceptance occurs within the constructive acceptance period, the Government will base the determination of an interest penalty on the actual date of acceptance. The constructive acceptance requirement does not, however, compel Government officials to accept supplies or services, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the Contractor shall resolve claims involving disputes and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.

(6) Discounts for prompt payment. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with the prompt payment regulations at 5 CFR part 1315.

(7) Additional interest penalty. (i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315 in addition to the interest penalty amount only if--

- (A) The Government owes an interest penalty of \$1 or more;
 - (B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and
 - (C) The Contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(7)(ii) of this clause, postmarked not later than 40 days after the invoice amount is paid.
- (ii)(A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall--
- (1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;
 - (2) Attach a copy of the invoice on which the unpaid late payment interest is due; and
 - (3) State that payment of the principal has been received, including the date of receipt.
- (B) If there is no postmark or the postmark is illegible--
- (1) The designated payment office that receives the demand will annotate it with the date of receipt, provided the demand is received on or before the 40th day after payment was made; or
 - (2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.
- (iii) The additional penalty does not apply to payments regulated by other Government regulations (e.g., payments under utility contracts subject to tariffs and regulation).
- (b) Contract financing payment. If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.
 - (c) Fast payment procedure due dates. If this contract contains the clause at 52.213-1, Fast Payment Procedure, payments will be made within 15 days after the date of receipt of the invoice.
 - (d) Overpayments. If the Contractor becomes aware of a duplicate payment or that the Government has otherwise overpaid on an invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.

52.232-27 PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS (FEB 2002)

Notwithstanding any other payment terms in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer. Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a)(3) concerning payments due on Saturdays, Sundays, and legal holidays.)

(a) Invoice payments--(1) Types of invoice payments. For purposes of this clause, there are several types of invoice payments that may occur under this contract, as follows:

(i) Progress payments, if provided for elsewhere in this contract, based on Contracting Officer approval of the estimated amount and value of work or services performed, including payments for reaching milestones in any project.

(A) The due date for making such payments is 14 days after the designated billing office receives a proper payment request. If the designated billing office fails to annotate the payment request with the actual date of receipt at the time of receipt, the payment due date is the 14th day after the date of the Contractor's payment request, provided the designated billing office receives a proper payment request and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(B) The due date for payment of any amounts retained by the Contracting Officer in accordance with the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts, is as specified in the contract or, if not specified, 30 days after approval by the Contracting Officer for release to the Contractor.

(ii) Final payments based on completion and acceptance of all work and presentation of release of all claims against the Government arising by virtue of the contract, and payments for partial deliveries that have been accepted by the Government (e.g., each separate building, public work, or other division of the contract for which the price is stated separately in the contract).

(A) The due date for making such payments is the later of the following two events:

(1) The 30th day after the designated billing office receives a proper invoice from the Contractor.

(2) The 30th day after Government acceptance of the work or services completed by the Contractor. For a final invoice when the payment amount is subject to contract settlement actions (e.g., release of claims), acceptance is deemed to occur on the effective date of the contract settlement.

(B) If the designated billing office fails to annotate the invoice with the date of actual receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the Contractor's

invoice, provided the designated billing office receives a proper invoice and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(2) Contractor's invoice. The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(2)(i) through (a)(2)(xi) of this clause. If the invoice does not comply with these requirements, the designated billing office must return it within 7 days after receipt, with the reasons why it is not a proper invoice. When computing any interest penalty owed the Contractor, the Government will take into account if the Government notifies the Contractor of an improper invoice in an untimely manner.

(i) Name and address of the Contractor.

(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of mailing or transmission.)

(iii) Contract number or other authorization for work or services performed (including order number and contract line item number).

(iv) Description of work or services performed.

(v) Delivery and payment terms (e.g., discount for prompt payment terms).

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).

(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.

(viii) For payments described in paragraph (a)(1)(i) of this clause, substantiation of the amounts requested and certification in accordance with the requirements of the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts.

(ix) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(x) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer), contract clause (e.g., 52.232-33, Payment by Electronic

Funds Transfer--Central Contractor Registration, or 52.232-34, Payment by Electronic Funds Transfer--Other Than Central Contractor Registration), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(xi) Any other information or documentation required by the contract.

(3) Interest penalty. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(3)(i) through (a)(3)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

(i) The designated billing office received a proper invoice.

(ii) The Government processed a receiving report or other Government documentation authorizing payment and there was no disagreement over quantity, quality, Contractor compliance with any contract term or condition, or requested progress payment amount.

(iii) In the case of a final invoice for any balance of funds due the Contractor for work or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(4) Computing penalty amount. The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR part 1315.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor for payments described in paragraph (a)(1)(ii) of this clause, Government acceptance or approval is deemed to occur constructively on the 7th day after the Contractor has completed the work or services in accordance with the terms and conditions of the contract. If actual acceptance or approval occurs within the constructive acceptance or approval period, the Government will base the determination of an interest penalty on the actual date of acceptance or approval.

Constructive acceptance or constructive approval requirements do not apply if there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. These requirements also do not compel Government officials to accept work or services, approve Contractor estimates, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the Contractor shall resolve claims involving disputes, and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.

(5) Discounts for prompt payment. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with the prompt payment regulations at 5 CFR part 1315.

(6) Additional interest penalty. (i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315 in addition to the interest penalty amount only if--

(A) The Government owes an interest penalty of \$1 or more;

(B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and

(C) The Contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(6)(ii) of this clause, postmarked not later than 40 days after the date the invoice amount is paid.

(ii)(A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall--

(1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;

(2) Attach a copy of the invoice on which the unpaid late payment interest was due; and

(3) State that payment of the principal has been received, including the date of receipt.

(B) If there is no postmark or the postmark is illegible--

(1) The designated payment office that receives the demand will annotate it with the date of receipt provided the demand is received on or before the 40th day after payment was made; or

(2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.

(b) Contract financing payments. If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.

(c) Subcontract clause requirements. The Contractor shall include in each subcontract for property or services (including a material supplier) for the purpose of performing this contract the following:

(1) Prompt payment for subcontractors. A payment clause that obligates the Contractor to pay the subcontractor for satisfactory performance under its subcontract not later than 7 days from receipt of payment out of such amounts as are paid to the Contractor under this contract.

(2) Interest for subcontractors. An interest penalty clause that obligates the Contractor to pay to the subcontractor an interest penalty for each payment not made in accordance with the payment clause--

(i) For the period beginning on the day after the required payment date and ending on the date on which payment of the amount due is made; and

(ii) Computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contract Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(3) Subcontractor clause flowdown. A clause requiring each subcontractor to use:

(i) Include a payment clause and an interest penalty clause conforming to the standards set forth in paragraphs (c)(1) and (c)(2) of this clause in each of its subcontracts; and

(ii) Require each of its subcontractors to include such clauses in their subcontracts with each lower-tier subcontractor or supplier.

(d) Subcontract clause interpretation. The clauses required by paragraph (c) of this clause shall not be construed to impair the right of the Contractor or a subcontractor at any tier to negotiate, and to include in their subcontract, provisions that--

(1) Retainage permitted. Permit the Contractor or a subcontractor to retain (without cause) a specified percentage of each progress payment otherwise due to a subcontractor for satisfactory performance under the subcontract without incurring any obligation to pay a late payment interest penalty, in accordance with terms and conditions agreed to by the parties to the subcontract, giving such recognition as the parties deem appropriate to the ability of a subcontractor to furnish a performance bond and a payment bond;

(2) Withholding permitted. Permit the Contractor or subcontractor to make a determination that part or all of the subcontractor's request for payment may be withheld in accordance with the subcontract agreement; and

(3) Withholding requirements. Permit such withholding without incurring any obligation to pay a late payment penalty if--

(i) A notice conforming to the standards of paragraph (g) of this clause previously has been furnished to the subcontractor; and

(ii) The Contractor furnishes to the Contracting Officer a copy of any notice issued by a Contractor pursuant to paragraph (d)(3)(i) of this clause.

(e) Subcontractor withholding procedures. If a Contractor, after making a request for payment to the Government but before making a payment to a subcontractor for the subcontractor's performance covered by the payment request, discovers that all or a portion of the payment otherwise due such subcontractor is subject to withholding from the subcontractor in accordance with the subcontract agreement, then the Contractor shall--

(1) Subcontractor notice. Furnish to the subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon ascertaining the cause giving rise to a withholding, but prior to the due date for subcontractor payment;

(2) Contracting Officer notice. Furnish to the Contracting Officer, as soon as practicable, a copy of the notice furnished to the subcontractor pursuant to paragraph (e)(1) of this clause;

(3) Subcontractor progress payment reduction. Reduce the subcontractor's progress payment by an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (e)(1) of this clause;

(4) Subsequent subcontractor payment. Pay the subcontractor as soon as practicable after the correction of the identified subcontract performance deficiency, and--

(i) Make such payment within--

(A) Seven days after correction of the identified subcontract performance deficiency (unless the funds therefor must be recovered from the Government because of a reduction under paragraph (e)(5)(i)) of this clause; or

(B) Seven days after the Contractor recovers such funds from the Government; or

(ii) Incur an obligation to pay a late payment interest penalty computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty;

(5) Notice to Contracting Officer. Notify the Contracting Officer upon--

(i) Reduction of the amount of any subsequent certified application for payment; or

(ii) Payment to the subcontractor of any withheld amounts of a progress payment, specifying--

(A) The amounts withheld under paragraph (e)(1) of this clause; and

(B) The dates that such withholding began and ended; and

(6) Interest to Government. Be obligated to pay to the Government an amount equal to interest on the withheld payments (computed in the manner provided in 31 U.S.C. 3903(c)(1)), from the 8th day after receipt of the withheld amounts from the Government until--

(i) The day the identified subcontractor performance deficiency is corrected; or

(ii) The date that any subsequent payment is reduced under paragraph (e)(5)(i) of this clause.

(f) Third-party deficiency reports--(1) Withholding from subcontractor. If a Contractor, after making payment to a first-tier subcontractor, receives from a supplier or subcontractor of the first-tier subcontractor (hereafter referred to as a "second-tier subcontractor") a written notice in accordance with section 2 of the Act of August 24, 1935 (40 U.S.C. 270b, Miller Act), asserting a deficiency in such first-tier subcontractor's performance under the contract for which the Contractor may be ultimately liable, and the Contractor determines that all or a portion of future payments otherwise due such first-tier subcontractor is subject to withholding in accordance with the subcontract agreement, the Contractor may, without incurring an obligation to pay an interest penalty under paragraph (e)(6) of this clause--

(i) Furnish to the first-tier subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon making such determination; and

(ii) Withhold from the first-tier subcontractor's next available progress payment or payments an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (f)(1)(i) of this clause.

(2) Subsequent payment or interest charge. As soon as practicable, but not later than 7 days after receipt of satisfactory written notification that the identified subcontract performance deficiency has been corrected, the Contractor shall--

(i) Pay the amount withheld under paragraph (f)(1)(ii) of this clause to such first-tier subcontractor; or

(ii) Incur an obligation to pay a late payment interest penalty to such first-tier subcontractor computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(g) Written notice of subcontractor withholding. The Contractor shall issue a written notice of any withholding to a subcontractor (with a copy furnished to the Contracting Officer), specifying--

(1) The amount to be withheld;

(2) The specific causes for the withholding under the terms of the subcontract; and

(3) The remedial actions to be taken by the subcontractor in order to receive payment of the amounts withheld.

(h) Subcontractor payment entitlement. The Contractor may not request payment from the Government of any amount withheld or retained in accordance with paragraph (d) of this clause until such time as the Contractor has determined and certified to the Contracting Officer that the subcontractor is entitled to the payment of such amount.

(i) Prime-subcontractor disputes. A dispute between the Contractor and subcontractor relating to the amount or entitlement of a subcontractor to a payment or a late payment interest penalty under a clause included in the subcontract pursuant to paragraph (c) of this clause does not constitute a dispute to which the Government is a party. The Government may not be interpleaded in any judicial or administrative proceeding involving such a dispute.

(j) Preservation of prime-subcontractor rights. Except as provided in paragraph (i) of this clause, this clause shall not limit or impair any contractual, administrative, or judicial remedies otherwise available to the Contractor or a subcontractor in the event of a dispute involving late payment or nonpayment by the Contractor or deficient subcontract performance or nonperformance by a subcontractor.

(k) Non-recourse for prime contractor interest penalty. The Contractor's obligation to pay an interest penalty to a subcontractor pursuant to the clauses included in a subcontract under paragraph (c) of this clause shall not be construed to be an obligation of the Government for such interest penalty. A cost-reimbursement claim may not include any amount for reimbursement of such interest penalty.

(l) Overpayments. If the Contractor becomes aware of a duplicate payment or that the Government has otherwise overpaid on an invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.

52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER—CENTRAL CONTRACTOR REGISTRATION (MAY 1999)

(a) Method of payment. (1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT), except as provided in paragraph (a)(2) of this clause. As used in this clause, the term "EFT" refers to the funds transfer and may also include the payment information transfer.

(2) In the event the Government is unable to release one or more payments by EFT, the Contractor agrees to either--

(i) Accept payment by check or some other mutually agreeable method of payment; or

(ii) Request the Government to extend the payment due date until such time as the Government can make payment by EFT (but see paragraph (d) of this clause).

(b) Contractor's EFT information. The Government shall make payment to the Contractor using the EFT information contained in the Central Contractor Registration (CCR) database. In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to the CCR database.

(c) Mechanisms for EFT payment. The Government may make payment by EFT through either the Automated Clearing House (ACH) network, subject to the rules of the National Automated Clearing House Association, or the Fedwire Transfer System. The rules governing Federal payments through the ACH are contained in 31 CFR part 210.

(d) Suspension of payment. If the Contractor's EFT information in the CCR database is incorrect, then the Government need not make payment to the Contractor under this contract until correct EFT information is entered into the CCR database; and any invoice or contract financing request shall be deemed not to be a proper invoice for the purpose of prompt payment under this contract. The prompt payment terms of the contract regarding notice of an improper invoice and delays in accrual of interest penalties apply.

(e) Contractor EFT arrangements. If the Contractor has identified multiple payment receiving points (i.e., more than one remittance address and/or EFT information set) in the CCR database, and the Contractor has not notified the Government of the payment receiving point applicable to this contract, the Government shall make payment to the first payment receiving point (EFT information set or remittance address as applicable) listed in the CCR database.

(f) Liability for uncompleted or erroneous transfers. (1) If an uncompleted or erroneous transfer occurs because the Government used the Contractor's EFT information incorrectly, the Government remains responsible for--

(i) Making a correct payment;

(ii) Paying any prompt payment penalty due; and

(iii) Recovering any erroneously directed funds.

(2) If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect, or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and--

(i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or

(ii) If the funds remain under the control of the payment office, the Government shall not make payment, and the provisions of paragraph (d) of this clause shall apply.

(g) EFT and prompt payment. A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this contract if, in the EFT payment transaction instruction released to the Federal Reserve System, the date specified for settlement of the payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System.

(h) EFT and assignment of claims. If the Contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Contractor shall require as a condition of any such assignment, that the assignee shall register in the CCR database and shall be paid by EFT in accordance with the terms of this clause. In all respects, the requirements of this clause shall apply to the assignee as if it were the Contractor. EFT information that shows the ultimate recipient of the transfer to be other than the Contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of paragraph (d) of this clause.

(i) Liability for change of EFT information by financial agent. The Government is not liable for errors resulting from changes to EFT information made by the Contractor's financial agent.

(j) Payment information. The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address contained in the CCR database.

52.233-1 DISPUTES. (JUL 2002)

(a) This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613).

(b) Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved under this clause.

(c) Claim, as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding \$100,000 is not a claim under the Act until certified. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the

submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

(d)(1) A claim by the Contractor shall be made in writing and, unless otherwise stated in this contract, submitted within 6 years after accrual of the claim to the Contracting Officer for a written decision. A claim by the Government against the Contractor shall be subject to a written decision by the Contracting Officer.

(2)(i) The contractors shall provide the certification specified in subparagraph (d)(2)(iii) of this clause when submitting any claim -

(A) Exceeding \$100,000; or

(B) Regardless of the amount claimed, when using -

(1) Arbitration conducted pursuant to 5 U.S.C. 575-580; or

(2) Any other alternative means of dispute resolution (ADR) technique that the agency elects to handle in accordance with the Administrative Dispute Resolution Act (ADRA).

(ii) The certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.

(iii) The certification shall state as follows: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable; and that I am duly authorized to certify the claim on behalf of the Contractor.

(3) The certification may be executed by any person duly authorized to bind the Contractor with respect to the claim.

(e) For Contractor claims of \$100,000 or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over \$100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.

(f) The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in the Act.

(g) If the claim by the Contractor is submitted to the Contracting Officer or a claim by the Government is presented to the Contractor, the parties, by mutual consent, may agree to use alternative dispute resolution (ADR). If the Contractor refuses an offer for ADR, the Contractor shall inform the Contracting Officer, in writing, of the Contractor's specific reasons for rejecting the request.

(h) The Government shall pay interest on the amount found due and unpaid from (1) the date the Contracting Officer receives the claim (certified, if required); or (2) the date that payment otherwise would be due, if that date is later, until the date of payment. With regard to claims having defective certifications, as defined in (FAR) 48 CFR 33.201, interest shall be paid from the date that the Contracting Officer initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

(i) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under the contract, and comply with any decision of the Contracting Officer.

52.233-3 PROTEST AFTER AWARD (AUG. 1996)

(a) Upon receipt of a notice of protest (as defined in FAR 33.101) or a determination that a protest is likely (see FAR 33.102(d)), the Contracting Officer may, by written order to the Contractor, direct the Contractor to stop performance of the work called for by this contract. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Upon receipt of the final decision in the protest, the Contracting Officer shall either--

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.

(b) If a stop-work order issued under this clause is canceled either before or after a final decision in the protest, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if--

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to an adjustment within 30 days after the end of the period of work stoppage; provided, that if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon a proposal at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting

from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(e) The Government's rights to terminate this contract at any time are not affected by action taken under this clause.

(f) If, as the result of the Contractor's intentional or negligent misstatement, misrepresentation, or miscertification, a protest related to this contract is sustained, and the Government pays costs, as provided in FAR 33.102(b)(2) or 33.104(h)(1), the Government may require the Contractor to reimburse the Government the amount of such costs. In addition to any other remedy available, and pursuant to the requirements of Subpart 32.6, the Government may collect this debt by offsetting the amount against any payment due the Contractor under any contract between the Contractor and the Government.

52.236-5 MATERIAL AND WORKMANSHIP (APR 1984)

(a) All equipment, material, and articles incorporated into the work covered by this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.

(b) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. When directed to do so, the Contractor shall submit samples for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.

(c) All work under this contract shall be performed in a skillful and workmanlike manner. The Contracting Officer may require, in writing, that the Contractor remove from the work any employee the Contracting Officer deems incompetent, careless, or otherwise objectionable.

52.236-7 PERMITS AND RESPONSIBILITIES (NOV 1991)

The Contractor shall, without additional expense to the Government, be responsible for obtaining any necessary licenses and permits, and for complying with any Federal, State, and municipal laws, codes, and regulations applicable to the performance of the work. The Contractor shall also be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.

52.236-15 SCHEDULES FOR CONSTRUCTION CONTRACTS (APR 1984)

(a) The Contractor shall, within five days after the work commences on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring materials, plant, and equipment). The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of progress payments until the Contractor submits the required schedule.

(b) The Contractor shall enter the actual progress on the chart as directed by the Contracting Officer, and upon doing so shall immediately deliver three copies of the annotated schedule to the Contracting Officer. If, in the opinion of the Contracting Officer, the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the Contracting Officer, without additional cost to the Government. In this circumstance, the Contracting Officer may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules in chart form as the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained.

(c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the default terms of this contract.

52.236-17 LAYOUT OF WORK (APR 1984)

The Contractor shall lay out its work from Government established base lines and bench marks indicated on the drawings, and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at its own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the work. The Contractor shall be responsible for executing the work to the lines and grades that may be established or indicated by the Contracting Officer. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor or through its negligence before their removal is authorized, the Contracting Officer may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor.

52.236-26 PRECONSTRUCTION CONFERENCE (FEB 1995)

If the Contracting Officer decides to conduct a preconstruction conference, the successful offeror will be notified and will be required to attend. The Contracting Officer's notification will include specific details regarding the date, time, and location of the conference, any need for attendance by subcontractors, and information regarding the items to be discussed.

52.242-13 BANKRUPTCY (JUL 1995)

In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail or electronic commerce method authorized by the contract, written notification of the bankruptcy to the Contracting Officer responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting offices for all Government contracts against which final payment has not been made. This obligation remains in effect until final payment under this contract.

52.242-14 SUSPENSION OF WORK (APR 1984)

(a) The Contracting Officer may order the Contractor, in writing, to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of the Government.

(b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of this contract, or (2) by the Contracting Officer's failure to act within the time specified in this

contract (or within a reasonable time if not specified), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption, and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an equitable adjustment is provided for or excluded under any other term or condition of this contract. (c) A claim under this clause shall not be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order), and (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

52.243-5 CHANGES AND CHANGED CONDITIONS (APR 1984)

(a) The Contracting Officer may, in writing, order changes in the drawings and specifications within the general scope of the contract.

(b) The Contractor shall promptly notify the Contracting Officer, in writing, of subsurface or latent physical conditions differing materially from those indicated in this contract or unknown unusual physical conditions at the site before proceeding with the work.

(c) If changes under paragraph (a) or conditions under paragraph (b) increase or decrease the cost of, or time required for performing the work, the Contracting Officer shall make an equitable adjustment (see paragraph (d)) upon submittal of a "proposal for adjustment" (hereafter referred to as proposal) by the Contractor before final payment under the contract.

(d) The Contracting Officer shall not make an equitable adjustment under paragraph (b) unless--

(1) The Contractor has submitted and the Contracting Officer has received the required written notice; or

(2) The Contracting Officer waives the requirement for the written notice.

(e) Failure to agree to any adjustment shall be a dispute under the Disputes clause.

52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS (MAY 2002)

(a) Definitions. As used this clause--

"Commercial item", has the meaning contained in the clause at 52.202-1, Definitions.

"Subcontract", includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.

(c)(1) The Contractor shall insert the following clauses in subcontracts for commercial items:

(i) 52.219-8, Utilization of Small Business Concerns (OCT 2000) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$500,000 (\$1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(ii) 52.222-26, Equal Opportunity (APR 2002) (E.O. 11246).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans (DEC 2001) (38 U.S.C. 4212(a)).

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (JUN 1998) (29 U.S.C. 793).

(v) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (JUN 2000) (46 U.S.C. Appx 1241) (flowdown not required for subcontracts awarded beginning May 1, 1996).

(2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

52.246-1 CONTRACTOR INSPECTION REQUIREMENTS (APR 1984)

The Contractor is responsible for performing or having performed all inspections and tests necessary to substantiate that the supplies or services furnished under this contract conform to contract requirements, including any applicable technical requirements for specified manufacturers' parts. This clause takes precedence over any Government inspection and testing required in the contract's specifications, except for specialized inspections or tests specified to be performed solely by the Government.

52.246-12 INSPECTION OF CONSTRUCTION (AUG 1996)

(a) Definition. "Work" includes, but is not limited to, materials, workmanship, and manufacture and fabrication of components.

(b) The Contractor shall maintain an adequate inspection system and perform such inspections as

will ensure that the work performed under the contract conforms to contract requirements. The Contractor shall maintain complete inspection records and make them available to the Government. All work shall be conducted under the general direction of the Contracting Officer and is subject to Government inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.

(c) Government inspections and tests are for the sole benefit of the Government and do not--

(1) Relieve the Contractor of responsibility for providing adequate quality control measures;

(2) Relieve the Contractor of responsibility for damage to or loss of the material before acceptance;

(3) Constitute or imply acceptance; or

(4) Affect the continuing rights of the Government after acceptance of the completed work under paragraph (i) of this section.

(d) The presence or absence of a Government inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specification without the Contracting Officer's written authorization.

(e) The Contractor shall promptly furnish, at no increase in contract price, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer. The Government may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The Government shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.

(f) The Contractor shall, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest the Government consents to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

(g) If the Contractor does not promptly replace or correct rejected work, the Government may (1) by contract or otherwise, replace or correct the work and charge the cost to the Contractor or (2) terminate for default the Contractor's right to proceed.

(h) If, before acceptance of the entire work, the Government decides to examine already completed work by removing it or tearing it out, the Contractor, on request, shall promptly furnish all necessary facilities, labor, and material. If the work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray the expenses of the examination and of satisfactory reconstruction. However, if the work is found to meet contract requirements, the Contracting Officer shall make

an equitable adjustment for the additional services involved in the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.

(i) Unless otherwise specified in the contract, the Government shall accept, as promptly as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the Government's rights under any warranty or guarantee.

52.246-21 WARRANTY OF CONSTRUCTION (MAR 1994)

(a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (i) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier.

(b) This warranty shall continue for a period of 1 year from the date of final acceptance of the work. If the Government takes possession of any part of the work before final acceptance, this warranty shall continue for a period of 1 year from the date the Government takes possession.

(c) The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Government-owned or controlled real or personal property, when that damage is the result of--

(1) The Contractor's failure to conform to contract requirements; or

(2) Any defect of equipment, material, workmanship, or design furnished.

(d) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.

(e) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.

(f) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the Government shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

(g) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall--

(1) Obtain all warranties that would be given in normal commercial practice;

(2) Require all warranties to be executed, in writing, for the benefit of the Government, if directed by the Contracting Officer; and

(3) Enforce all warranties for the benefit of the Government, if directed by the Contracting Officer.

(h) In the event the Contractor's warranty under paragraph (b) of this clause has expired, the Government may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.

(i) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the Government nor for the repair of any damage that results from any defect in Government-furnished material or design.

(j) This warranty shall not limit the Government's rights under the Inspection and Acceptance clause of this contract with respect to latent defects, gross mistakes, or fraud.

52.248-3 VALUE ENGINEERING--CONSTRUCTION (FEB 2000)

(a) General. The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP's) voluntarily. The Contractor shall share in any instant contract savings realized from accepted VECP's, in accordance with paragraph (f) below.

(b) Definitions. "Collateral costs," as used in this clause, means agency costs of operation, maintenance, logistic support, or Government-furnished property.

"Collateral savings," as used in this clause, means those measurable net reductions resulting from a VECP in the agency's overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

"Contractor's development and implementation costs," as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Government acceptance of a VECP.

"Government costs," as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistic support. The term does not include the normal administrative costs of processing the VECP.

"Instant contract savings," as used in this clause, means the estimated reduction in Contractor cost of performance resulting from acceptance of the VECP, minus allowable Contractor's development and implementation costs, including subcontractors' development and implementation costs (see paragraph (h) below).

"Value engineering change proposal (VECP)" means a proposal that--

- (1) Requires a change to this, the instant contract, to implement; and
- (2) Results in reducing the contract price or estimated cost without impairing essential functions or characteristics; provided, that it does not involve a change--
 - (i) In deliverable end item quantities only; or
 - (ii) To the contract type only.
- (c) VECP preparation. As a minimum, the Contractor shall include in each VECP the information described in subparagraphs (1) through (7) below. If the proposed change is affected by contractually required configuration management or similar procedures, the instructions in those procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:
 - (1) A description of the difference between the existing contract requirement and that proposed, the comparative advantages and disadvantages of each, a justification when an item's function or characteristics are being altered, and the effect of the change on the end item's performance.
 - (2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.
 - (3) A separate, detailed cost estimate for
 - (i) the affected portions of the existing contract requirement and
 - (ii) the VECP. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts under paragraph (h) below.
 - (4) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.
 - (5) A prediction of any effects the proposed change would have on collateral costs to the agency.
 - (6) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.
 - (7) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.
- (d) Submission. The Contractor shall submit VECP's to the Resident Engineer at the worksite, with a copy to the Contracting Officer.

(e) Government action.

(1) The Contracting Officer will notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer will notify the Contractor within the 45-day period and provide the reason for the delay and the expected date of the decision. The Government will process VECP's expeditiously; however, it shall not be liable for any delay in acting upon a VECP.

If the VECP is not accepted, the Contracting Officer will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.

Any VECP may be accepted, in whole or in part, by the Contracting Officer's award of a modification to this contract citing this clause. The Contracting Officer may accept the VECP, even though an agreement on price reduction has not been reached, by issuing the Contractor a notice to proceed with the change. Until a notice to proceed is issued or a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the Contracting Officer.

(f) Sharing.

(1) Rates. The Government's share of savings is determined by subtracting Government costs from instant contract savings and multiplying the result by

(i) 45 percent for fixed-price contracts or

(ii) 75 percent for cost-reimbursement contracts.

(2) Payment. Payment of any share due the Contractor for use of a VECP on this contract shall be authorized by a modification to this contract to--

(i) Accept the VECP;

(ii) Reduce the contract price or estimated cost by the amount of instant contract savings; and

(iii) Provide the Contractor's share of savings by adding the amount calculated to the contract price or fee.

(g) Collateral savings. If a VECP is accepted, the Contracting Officer will increase the instant contract amount by 20 percent of any projected collateral savings determined to be realized in a typical year of use after subtracting any Government costs not previously offset. However, the Contractor's share of collateral savings will not exceed the contract's firm-fixed-price or

estimated cost, at the time the VECP is accepted, or \$100,000, whichever is greater. The Contracting Officer is the sole determiner of the amount of collateral savings.

(h) Subcontracts. The Contractor shall include an appropriate value engineering clause in any subcontract of \$50,000 or more and may include one in subcontracts of lesser value. In computing any adjustment in this contract's price under paragraph (f) above, the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs clearly resulting from a VECP accepted by the Government under this contract, but shall exclude any value engineering incentive payments to a subcontractor. The Contractor may choose any arrangement for subcontractor value engineering incentive payments; provided, that these payments shall not reduce the Government's share of the savings resulting from the VECP.

(i) Data. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

"These data, furnished under the Value Engineering-- Construction clause of contract, shall not be disclosed outside the Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the Government's right to use information contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations." If a VECP is accepted, the Contractor hereby grants the Government unlimited rights in the VECP and supporting data, except that, with respect to data qualifying and submitted as limited rights technical data, the Government shall have the rights specified in the contract modification implementing the VECP and shall appropriately mark the data. (The terms "unlimited rights" and "limited rights" are defined in Part 27 of the Federal Acquisition Regulation.)

52.249-2 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE) (SEP 1996) - ALTERNATE I (SEP 1996)

(a) The Government may terminate performance of work under this contract in whole or, from time to time, in part if the Contracting Officer determines that a termination is in the Government's interest. The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying the extent of termination and the effective date.

(b) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:

(1) Stop work as specified in the notice.

(2) Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete the continued portion of the contract.

- (3) Terminate all subcontracts to the extent they relate to the work terminated.
- (4) Assign to the Government, as directed by the Contracting Officer, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.
- (5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts; the approval or ratification will be final for purposes of this clause.
- (6) As directed by the Contracting Officer, transfer title and deliver to the Government (i) the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated, and (ii) the completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the Government.
- (7) Complete performance of the work not terminated.
- (8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the Government has or may acquire an interest.
- (9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in subparagraph (b)(6) of this clause; provided, however, that the Contractor (i) is not required to extend credit to any purchaser and (ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Government under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.
- (c) The Contractor shall submit complete termination inventory schedules no later than 120 days from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 120-day period.
- (d) After expiration of the plant clearance period as defined in Subpart 45.6 of the Federal Acquisition Regulation, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Contracting Officer. The Contractor may request the Government to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept title to those items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored, within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.

(e) After termination, the Contractor shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer. The Contractor shall submit the proposal promptly, but no later than 1 year from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 1-year period. However, if the Contracting Officer determines that the facts justify it, a termination settlement proposal may be received and acted on after 1 year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.

(f) Subject to paragraph (e) of this clause, the Contractor and the Contracting Officer may agree upon the whole or any part of the amount to be paid or remaining to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, whether under this paragraph (g) or paragraph (g) of this clause, exclusive of costs shown in subparagraph (g)(3) of this clause, may not exceed the total contract price as reduced by (1) the amount of payments previously made and (2) the contract price of work not terminated. The contract shall be modified, and the Contractor paid the agreed amount. Paragraph (g) of this clause shall not limit, restrict, or affect the amount that may be agreed upon to be paid under this paragraph.

(g) If the Contractor and Contracting Officer fail to agree on the whole amount to be paid the Contractor because of the termination of work, the Contracting Officer shall pay the Contractor the amounts determined as follows, but without duplication of any amounts agreed upon under paragraph (f) of this clause:

(1) For contract work performed before the effective date of termination, the total (without duplication of any items) of--

(i) The cost of this work;

(ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subdivision (g)(1)(i) of this clause; and

(iii) A sum, as profit on subdivision (g)(1)(i) of this clause, determined by the Contracting Officer under 49.202 of the Federal Acquisition Regulation, in effect on the date of this contract, to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the Contracting Officer shall allow no profit under this subdivision (iii) and shall reduce the settlement to reflect the indicated rate of loss.

(2) The reasonable costs of settlement of the work terminated, including--

(i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;

(ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and

(iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.

(h) Except for normal spoilage, and except to the extent that the Government expressly assumed the risk of loss, the Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (g) of this clause, the fair value, as determined by the Contracting Officer, of property that is destroyed, lost, stolen, or damaged so as to become undeliverable to the Government or to a buyer.

(i) The cost principles and procedures of Part 31 of the Federal Acquisition Regulation, in effect on the date of this contract, shall govern all costs claimed, agreed to, or determined under this clause.

(j) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraph (e), (g), or (l) of this clause, except that if the Contractor failed to submit the termination settlement proposal or request for equitable adjustment within the time provided in paragraph (e) or (l), respectively, and failed to request a time extension, there is no right of appeal.

(k) In arriving at the amount due the Contractor under this clause, there shall be deducted--

(1) All unliquidated advance or other payments to the Contractor under the terminated portion of this contract;

(2) Any claim which the Government has against the Contractor under this contract; and

(3) The agreed price for, or the proceeds of sale of, materials, supplies, or other things acquired by the Contractor or sold under the provisions of this clause and not recovered by or credited to the Government.

(l) If the termination is partial, the Contractor may file a proposal with the Contracting Officer for an equitable adjustment of the price(s) of the continued portion of the contract. The Contracting Officer shall make any equitable adjustment agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be requested within 90 days from the effective date of termination unless extended in writing by the Contracting Officer.

(m)(1) The Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the contract, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor will be entitled.

(2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Government upon demand, together with interest computed at the rate

established by the Secretary of the Treasury under 50 U.S.C. App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or other disposition of termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.

(n) Unless otherwise provided in this contract or by statute, the Contractor shall maintain all records and documents relating to the terminated portion of this contract for 3 years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this contract. The Contractor shall make these records and documents available to the Government, at the Contractor's office, at all reasonable times, without any direct charge. If approved by the Contracting Officer, photographs, microphotographs, or other authentic reproductions may be maintained instead of original records and documents.

52.253-1 COMPUTER GENERATED FORMS (JAN 1991)

(a) Any data required to be submitted on a Standard or Optional Form prescribed by the Federal Acquisition Regulation (FAR) may be submitted on a computer generated version of the form, provided there is no change to the name, content, or sequence of the data elements on the form, and provided the form carries the Standard or Optional Form number and edition date.

(b) Unless prohibited by agency regulations, any data required to be submitted on an agency unique form prescribed by an agency supplement to the FAR may be submitted on a computer generated version of the form provided there is no change to the name, content, or sequence of the data elements on the form and provided the form carries the agency form number and edition date.

(e) If the Contractor submits a computer generated version of a form that is different than the required form, then the rights and obligations of the parties will be determined based on the content of the required form.

252.203-7001 PROHIBITION ON PERSONS CONVICTED OF FRAUD OR OTHER DEFENSE-CONTRACT-RELATED FELONIES (MAR 1999)

(a) Definitions. As used in this clause—

(1) “Arising out of a contract with the DoD” means any act in connection with—

(i) Attempting to obtain;

(ii) Obtaining, or

(iii) Performing a contract or first-tier subcontract of any agency, department, or component of the Department of Defense (DoD).

(2) “Conviction of fraud or any other felony” means any conviction for fraud or a felony in violation of state or Federal criminal statutes, whether entered on a verdict or plea, including a plea of *nolo contendere*, for which sentence has been imposed.

(3) “Date of conviction” means the date judgment was entered against the individual.

(b) Any individual who is convicted after September 29, 1988, of fraud or any other felony arising out of a contract with the DoD is prohibited from serving--

(1) In a management or supervisory capacity on any DoD contract or first-tier subcontract;

(2) On the board of directors of any DoD contractor or first-tier subcontractor;

(3) As a consultant, agent, or representative for any DoD contractor or first-tier subcontractor; or

(4) In any other capacity with the authority to influence, advise, or control the decisions of any DoD contractor or subcontractor with regard to any DoD contract or first-tier subcontract.

(c) Unless waived, the prohibition in paragraph (b) of this clause applies for not less than 5 years from the date of conviction.

(d) 10 U.S.C. 2408 provides that a defense contractor or first-tier subcontractor shall be subject to a criminal penalty of not more than \$500,000 if convicted of knowingly—

(1) Employing a person under a prohibition specified in paragraph (b) of this clause; or

(2) Allowing such a person to serve on the board of directors of the contractor or first-tier subcontractor.

(e) In addition to the criminal penalties contained in 10 U.S.C. 2408, the Government may consider other available remedies, such as—

(1) Suspension or debarment;

(2) Cancellation of the contract at no cost to the Government; or

(3) Termination of the contract for default.

(f) The Contractor may submit written requests for waiver of the prohibition in paragraph (b) of this clause to the Contracting Officer. Requests shall clearly identify—

(1) The person involved;

(2) The nature of the conviction and resultant sentence or punishment imposed;

(3) The reasons for the requested waiver; and

(4) An explanation of why a waiver is in the interest of national security.

(g) The Contractor agrees to include the substance of this clause, appropriately modified to reflect the identity and relationship of the parties, in all first-tier subcontracts exceeding the

simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation, except those for commercial items or components.

(h) Pursuant to 10 U.S.C. 2408(c), defense contractors and subcontractors may obtain information as to whether a particular person has been convicted of fraud or any other felony arising out of a contract with the DoD by contacting The Office of Justice Programs, The Denial of Federal Benefits Office, U.S. Department of Justice, telephone (202) 616-3507.

252.204-7003 CONTROL OF GOVERNMENT PERSONNEL WORK PRODUCT (APR 1992)

The Contractor's procedures for protecting against unauthorized disclosure of information shall not require Department of Defense employees or members of the Armed Forces to relinquish control of their work products, whether classified or not, to the contractor.

252.204-7004 REQUIRED CENTRAL CONTRACTOR REGISTRATION (NOV 2001)

(a) Definitions.

As used in this clause--

(1) Central Contractor Registration (CCR) database means the primary DoD repository for contractor information required for the conduct of business with DoD.

(2) Data Universal Numbering System (DUNS) number means the 9-digit number assigned by Dun and Bradstreet Information Services to identify unique business entities.

(3) Data Universal Numbering System +4 (DUNS+4) number means the DUNS number assigned by Dun and Bradstreet plus a 4-digit suffix that may be assigned by a parent (controlling) business concern. This 4-digit suffix may be assigned at the discretion of the parent business concern for such purposes as identifying subunits or affiliates of the parent business concern.

(4) Registered in the CCR database means that all mandatory information, including the DUNS number or the DUNS+4 number, if applicable, and the corresponding Commercial and Government Entity (CAGE) code, is in the CCR database; the DUNS number and the CAGE code have been validated; and all edits have been successfully completed.

(b)(1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee must be registered in the CCR database prior to award, during performance, and through final payment of any contract resulting from this solicitation, except for awards to foreign vendors for work to be performed outside the United States.

(2) The offeror shall provide its DUNS or, if applicable, its DUNS+4 number with its offer, which will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.

(3) Lack of registration in the CCR database will make an offeror ineligible for award.

(4) DoD has established a goal of registering an applicant in the CCR database within 48 hours after receipt of a complete and accurate application via the Internet. However, registration of an applicant submitting an application through a method other than the Internet may take up to 30 days. Therefore, offerors that are not registered should consider applying for registration immediately upon receipt of this solicitation.

(c) The Contractor is responsible for the accuracy and completeness of the data within the CCR, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to confirm on an annual basis that its information in the CCR database is accurate and complete.

(d) Offerors and contractors may obtain information on registration and annual confirmation requirements by calling 1-888-227-2423, or via the Internet at <http://www.ccr.gov>.

252.209-7004 SUBCONTRACTING WITH FIRMS THAT ARE OWNED OR CONTROLLED BY THE GOVERNMENT OF A TERRORIST COUNTRY (MAR 1998)

(a) Unless the Government determines that there is a compelling reason to do so, the Contractor shall not enter into any subcontract in excess of \$25,000 with a firm, or subsidiary of a firm, that is identified, on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs, as being ineligible for the award of Defense contracts or subcontracts because it is owned or controlled by the government of a terrorist country.

(b) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is identified, on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs, as being ineligible for the award of Defense contracts or subcontracts because it is owned or controlled by the government of a terrorist country. The notice must include the name of the proposed subcontractor notwithstanding its inclusion on the List of Parties Excluded From Federal Procurement and Nonprocurement Programs.

252.223-7004 DRUG-FREE WORK FORCE (SEP 1988)

(a) Definitions.

(1) "Employee in a sensitive position," as used in this clause, means an employee who has been granted access to classified information; or employees in other positions that the Contractor determines involve national security; health or safety, or functions other than the foregoing requiring a high degree of trust and confidence.

(2) "Illegal drugs," as used in this clause, means controlled substances included in Schedules I and II, as defined by section 802(6) of title 21 of the United States Code, the possession of which is unlawful under chapter 13 of that Title. The term "illegal drugs" does not mean the use of a controlled substance pursuant to a valid prescription or other uses authorized by law.

(b) The Contractor agrees to institute and maintain a program for achieving the objective of a drug-free work force. While this clause defines criteria for such a program, contractors are encouraged to implement alternative approaches comparable to the criteria in paragraph (c) that are designed to achieve the objectives of this clause.

(c) Contractor programs shall include the following, or appropriate alternatives:

(1) Employee assistance programs emphasizing high level direction, education, counseling, rehabilitation, and coordination with available community resources;

(2) Supervisory training to assist in identifying and addressing illegal drug use by Contractor employees;

(3) Provision for self-referrals as well as supervisory referrals to treatment with maximum respect for individual confidentiality consistent with safety and security issues;

(4) Provision for identifying illegal drug users, including testing on a controlled and carefully monitored basis. Employee drug testing programs shall be established taking account of the following:

(i) The Contractor shall establish a program that provides for testing for the use of illegal drugs by employees in sensitive positions. The extent of and criteria for such testing shall be determined by the Contractor based on considerations that include the nature of the work being performed under the contract, the employee's duties, and efficient use of Contractor resources, and the risks to health, safety, or national security that could result from the failure of an employee adequately to discharge his or her position.

(ii) In addition, the Contractor may establish a program for employee drug testing--

(A) When there is a reasonable suspicion that an employee uses illegal drugs; or

(B) When an employee has been involved in an accident or unsafe practice;

(C) As part of or as a follow-up to counseling or rehabilitation for illegal drug use;

(D) As part of a voluntary employee drug testing program.

(iii) The Contractor may establish a program to test applicants for employment for illegal drug use.

(iv) For the purpose of administering this clause, testing for illegal drugs may be limited to those substances for which testing is prescribed by section 2..1 of subpart B of the "Mandatory Guidelines for Federal Workplace Drug Testing Programs" (53 FR 11980 (April 11, 1988), issued by the Department of Health and Human Services.

(d) Contractors shall adopt appropriate personnel procedures to deal with employees who are found to be using drugs illegally. Contractors shall not allow any employee to remain on duty or perform in a sensitive position who is found to use illegal drugs until such times as the Contractor, in accordance with procedures established by the Contractor, determines that the employee may perform in such a position.

(e) The provisions of this clause pertaining to drug testing program shall not apply to the extent that are inconsistent with state or local law, or with an existing collective bargaining agreement; provided that with respect to the latter, the Contractor agrees those issues that are in conflict will be a subject of negotiation at the next collective bargaining session.

252.225-7012 PREFERENCE FOR CERTAIN DOMESTIC COMMODITIES (APR 2002)

(a) Definitions. As used in this clause--

(1) Component means any item supplied to the Government as part of an end product or of another component.

(2) End product means supplies delivered under a line item of this contract.

(b) The Contractor shall deliver under this contract only such of the following items, either as end products or components, that have been grown, reprocessed, reused, or produced in the United States, its possessions, or Puerto Rico:

(1) Food.

(2) Clothing.

(3) Tents, tarpaulins, or covers.

(4) Cotton and other natural fiber products.

(5) Woven silk or woven silk blends.

(6) Spun silk yarn for cartridge cloth.

(7) Synthetic fabric, and coated synthetic fabric, including all textile fibers and yarns that are for use in such fabrics.

(8) Canvas products.

(9) Wool (whether in the form of fiber or yarn or contained in fabrics, materials, or manufactured articles).

(10) Any item of individual equipment (Federal Supply Class 8465) manufactured from or containing fibers, yarns, fabrics, or materials listed in this paragraph (b).

(c) This clause does not apply--

(1) To items listed in section 25.104(a) of the Federal Acquisition Regulation (FAR), or other items for which the Government has determined that a satisfactory quality and sufficient quantity cannot be acquired as and when needed at U.S. market prices;

(2) To end products incidentally incorporating cotton, other natural fibers, or wool, for which the estimated value of the cotton, other natural fibers, or wool--

(i) Is not more than 10 percent of the total price of the end product; and (ii) Does not exceed the simplified acquisition threshold in FAR part 2;

(3) To foods that have been manufactured or processed in the United States, its possessions, or Puerto Rico, regardless of where the foods (and any component if applicable) were grown or produced;

(4) To chemical warfare protective clothing produced in the countries listed in subsection 225.872-1 of the Defense FAR Supplement; or

(5) To fibers and yarns that are for use in synthetic fabric or coated synthetic fabric (but does apply to the synthetic or coated synthetic fabric itself), if--

(i) The fabric is to be used as a component of an end product that is not a textile product. Examples of textile products, made in whole or in part of fabric, include--

(A) Draperies, floor coverings, furnishings, and bedding (Federal Supply Group 72, Household and Commercial Furnishings and Appliances);

(B) Items made in whole or in part of fabric in Federal Supply Group 83, Textile/leather/furs/apparel/findings/ tents/flags, or Federal Supply Group 84, Clothing, Individual Equipment and Insignia;

(C) Upholstered seats (whether for household, office, or other use); and

(D) Parachutes (Federal Supply Class 1670); or

(ii) The fibers and yarns are para-aramid fibers and yarns manufactured in the Netherlands.

252.225-7031 SECONDARY ARAB BOYCOTT OF ISRAEL (JUN 1992)

(a) Definitions. As used in this clause--

(1) "Foreign person" means any person other than a United States person as defined in Section 16(2) of the Export Administration Act of 1979 (50 U.S.C. App. Sec 2415).

(2) "United States person" is defined in Section 16(2) of the Export Administration Act of 1979 and means any United States resident or national (other than an individual resident outside the United States and employed by other than a United States person), any domestic concern (including any permanent domestic establishment of any foreign concern), and any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern which is controlled in fact by such domestic concerns, as determined under regulations of the President.

(b) Certification. By submitting this offer, the Offeror, if a foreign person, company or entity, certifies that it--

(1) Does not comply with the Secondary Arab Boycott of Israel; and

(2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. Sec 2407(a) prohibits a United States person from taking.

252.227-7033 RIGHTS IN SHOP DRAWINGS (APR 1966)

(a) Shop drawings for construction means drawings, submitted to the Government by the Construction Contractor, subcontractor or any lower-tier subcontractor pursuant to a construction contract, showing in detail (i) the proposed fabrication and assembly of structural elements and (ii) the installation (i.e., form, fit, and attachment details) of materials or equipment. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(b) This clause, including this paragraph (b), shall be included in all subcontracts hereunder at any tier.

252.236-7000 MODIFICATION PROPOSALS - PRICE BREAKDOWN. (DEC 1991)

(a) The Contractor shall furnish a price breakdown, itemized as required and within the time specified by the Contracting Officer, with any proposal for a contract modification.

(b) The price breakdown --

(1) Must include sufficient detail to permit an analysis of profit, and of all costs for --

(i) Material;

(ii) Labor;

(iii) Equipment;

(iv) Subcontracts; and

(v) Overhead; and

(2) Must cover all work involved in the modification, whether the work was deleted, added, or changed.

(c) The Contractor shall provide similar price breakdowns to support any amounts claimed for subcontracts.

(d) The Contractor's proposal shall include a justification for any time extension proposed.

252.236-7002 OBSTRUCTION OF NAVIGABLE WATERWAYS. (DEC 1991)

(a) The Contractor shall --

(1) Promptly recover and remove any material, plant, machinery, or appliance which the

contractor loses, dumps, throws overboard, sinks, or misplaces, and which, in the opinion of the Contracting Officer, may be dangerous to or obstruct navigation;

(2) Give immediate notice, with description and locations of any such obstructions, to the Contracting Officer; and

(3) When required by the Contracting Officer, mark or buoy such obstructions until the same are removed.

(b) The Contracting Officer may --

(1) Remove the obstructions by contract or otherwise should the Contractor refuse, neglect, or delay compliance with paragraph (a) of this clause; and

(2) Deduct the cost of removal from any monies due or to become due to the Contractor; or

(3) Recover the cost of removal under the Contractor's bond.

(c) The Contractor's liability for the removal of a vessel wrecked or sunk without fault or negligence is limited to that provided in sections 15, 19, and 20 of the River and Harbor Act of March 3, 1899 (33 U.S.C. 410 et. seq.).

252.242-7000 POSTAWARD CONFERENCE (DEC 1991)

The Contractor agrees to attend any postaward conference convened by the contracting activity or contract administration office in accordance with Federal Acquisition Regulation subpart 42.5.

252.243-7001 PRICING OF CONTRACT MODIFICATIONS (DEC 1991)

When costs are a factor in any price adjustment under this contract, the contract cost principles and procedures in FAR part 31 and DFARS part 231, in effect on the date of this contract, apply.

252.243-7002 REQUESTS FOR EQUITABLE ADJUSTMENT (MAR 1998)

(a) The amount of any request for equitable adjustment to contract terms shall accurately reflect the contract adjustment for which the Contractor believes the Government is liable. The request shall include only costs for performing the change, and shall not include any costs that already have been reimbursed or that have been separately claimed. All indirect costs included in the request shall be properly allocable to the change in accordance with applicable acquisition regulations.

(b) In accordance with 10 U.S.C. 2410(a), any request for equitable adjustment to contract terms that exceeds the simplified acquisition threshold shall bear, at the time of submission, the

following certificate executed by an individual authorized to certify the request on behalf of the Contractor:

I certify that the request is made in good faith, and that the supporting data are accurate and complete to the best of my knowledge and belief.

(Official's Name)

(Title)

(c) The certification in paragraph (b) of this clause requires full disclosure of all relevant facts, including--

(1) Cost or pricing data if required in accordance with subsection 15.403-4 of the Federal Acquisition Regulation (FAR); and

(2) Information other than cost or pricing data, in accordance with subsection 15.403-3 of the FAR, including actual cost data and data to support any estimated costs, even if cost or pricing data are not required.

(d) The certification requirement in paragraph (b) of this clause does not apply to----

(1) Requests for routine contract payments; for example, requests for payment for accepted supplies and services, routine vouchers under a cost-reimbursement type contract, or progress payment invoices; or

(2) Final adjustment under an incentive provision of the contract.

252.247-7023 TRANSPORTATION OF SUPPLIES BY SEA (MAY 2002) ALTERNATE III (MAY 2002)

(a) Definitions. As used in this clause --

(1) "Components" means articles, materials, and supplies incorporated directly into end products at any level of manufacture, fabrication, or assembly by the Contractor or any subcontractor.

(2) "Department of Defense" (DoD) means the Army, Navy, Air Force, Marine Corps, and defense agencies.

(3) "Foreign flag vessel" means any vessel that is not a U.S.-flag vessel.

(4) "Ocean transportation" means any transportation aboard a ship, vessel, boat, barge, or ferry through international waters.

(5) "Subcontractor" means a supplier, materialman, distributor, or vendor at any level below the prime contractor whose contractual obligation to perform results from, or is conditioned upon, award of the prime contract and who is performing any part of the work or other requirement of the prime contract.

(6) "Supplies" means all property, except land and interests in land, that is clearly identifiable for eventual use by or owned by the DoD at the time of transportation by sea.

(i) An item is clearly identifiable for eventual use by the DoD if, for example, the contract documentation contains a reference to a DoD contract number or a military destination.

(ii) "Supplies" includes (but is not limited to) public works; buildings and facilities; ships; floating equipment and vessels of every character, type, and description, with parts, subassemblies, accessories, and equipment; machine tools; material; equipment; stores of all kinds; end items; construction materials; and components of the foregoing.

(7) "U.S.-flag vessel" means a vessel of the United States or belonging to the United States, including any vessel registered or having national status under the laws of the United States.

(b)(1) The Contractor shall use U.S.-flag vessels when transporting any supplies by sea under this contract.

(2) A subcontractor transporting supplies by sea under this contract shall use U.S.-flag vessels if--

(i) This contract is a construction contract; or

(ii) The supplies being transported are--

(A) Noncommercial items; or

(B) Commercial items that--

(1) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it contracts for f.o.b. destination shipment);

(2) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(3) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

(c) The Contractor and its subcontractors may request that the Contracting Officer authorize shipment in foreign-flag vessels, or designate available U.S.-flag vessels, if the Contractor or a subcontractor believes that --

- (1) U.S.-flag vessels are not available for timely shipment;
- (2) The freight charges are inordinately excessive or unreasonable; or
- (3) Freight charges are higher than charges to private persons for transportation of like goods.
- (d) The Contractor must submit any request for use of other than U.S.-flag vessels in writing to the Contracting Officer at least 45 days prior to the sailing date necessary to meet its delivery schedules. The Contracting Officer will process requests submitted after such date(s) as expeditiously as possible, but the Contracting Officer's failure to grant approvals to meet the shipper's sailing date will not of itself constitute a compensable delay under this or any other clause of this contract. Requests shall contain at a minimum --

- (1) Type, weight, and cube of cargo;
- (2) Required shipping date;
- (3) Special handling and discharge requirements;
- (4) Loading and discharge points;
- (5) Name of shipper and consignee;
- (6) Prime contract number; and
- (7) A documented description of efforts made to secure U.S.-flag vessels, including points of contact (with names and telephone numbers) with at least two U.S.-flag carriers contacted. Copies of telephone notes, telegraphic and facsimile message or letters will be sufficient for this purpose.

(e) The Contractor shall, within 30 days after each shipment covered by this clause, provide the Contracting Officer and the Maritime Administration, Office of Cargo Preference, U.S. Department of Transportation, 400 Seventh Street SW., Washington, DC 20590, one copy of the rated on board vessel operating carrier's ocean bill of lading, which shall contain the following information:

- (1) Prime contract number;
- (2) Name of vessel;
- (3) Vessel flag of registry;
- (4) Date of loading;
- (5) Port of loading;

- (6) Port of final discharge;
- (7) Description of commodity;
- (8) Gross weight in pounds and cubic feet if available;
- (9) Total ocean freight in U.S. dollars; and
- (10) Name of the steamship company.

(f) The Contractor shall insert the substance of this clause, including this paragraph (f), in subcontracts that are for a type of supplies described in paragraph (b)(2) of this clause.

252.247-7024 NOTIFICATION OF TRANSPORTATION OF SUPPLIES BY SEA (MAR 2000)

(a) The Contractor has indicated by the response to the solicitation provision, Representation of Extent of Transportation by Sea, that it did not anticipate transporting by sea any supplies. If, however, after the award of this contract, the Contractor learns that supplies, as defined in the Transportation of Supplies by Sea clause of this contract, will be transported by sea, the Contractor --

(1) Shall notify the Contracting Officer of that fact; and

(2) Hereby agrees to comply with all the terms and conditions of the Transportation of Supplies by Sea clause of this contract.

(b) The Contractor shall include this clause; including this paragraph (b), revised as necessary to reflect the relationship of the contracting parties--

(1) In all subcontracts under this contract, if this contract is a construction contract; or

(2) If this contract is not a construction contract, in all subcontracts under this contract that are for--

(i) Noncommercial items; or

(ii) Commercial items that--

(A) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it subcontracts for f.o.b. destination shipment);

(B) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(C) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS
SPECIAL CONTRACT REQUIREMENTS

00800	SPECIAL CLAUSES
00805	CONTRACT ADMINISTRATION
00815	WAGE RATES
00835	REGIONS FOR THE CONSTRUCTION EQUIPMENT OWNERSHIP AND OPERATIONS EXPENSE SCHEDULE
00840	SURVEY CONTROL DESCRIPTION SHEETS

This page was intentionally left blank for duplex printing.

SECTION 00800

SPECIAL CLAUSES

INDEX

PARA	TITLE
SC-1	COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK
SC-2	LIQUIDATED DAMAGES - CONSTRUCTION
SC-3	CONTINUING CONTRACTS
SC-4	CONTRACT DRAWINGS, MAPS AND SPECIFICATIONS
SC-5	PHYSICAL DATA
SC-6	LAYOUT OF WORK
SC-7	DAMAGE TO WORK
SC-8	PERFORMANCE OF WORK BY THE CONTRACTOR
SC-9	ENVIRONMENTAL LITIGATION
SC-10	SIGNAL LIGHTS
SC-11	QUANTITY SURVEYS
SC-12	EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE
SC-13	CERTIFICATES OF COMPLIANCE
SC-14	PERFORMANCE EVALUATION OF CONTRACTOR
SC-15	TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER
SC-16	INSURANCE REQUIREMENTS

THIS PAGE HAS BEEN LEFT INTENTIONALLY BLANK

SPECIAL CLAUSES

SC-1 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within 10 calendar days after the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than 240 calendar days after the Contractor receives the notice to proceed. The time stated for completion shall include final cleanup of the premises. (FAR 52.211-10)

SC-2 LIQUIDATED DAMAGES - CONSTRUCTION (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of \$500.00 for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause. (FAR 52.211-12)

SC-3 CONTINUING CONTRACTS (MARCH 1995 EFARS)

a. This is a continuing contract, as authorized by Section 10 of the River and Harbor Act of September 22, 1922 (33 U.S. Code 621). The payment of some portion of the contract price is dependent upon reservations of funds from future appropriations, and from future contribution to the project having one or more non-federal project sponsors. The responsibilities of the Government are limited by this clause notwithstanding any contrary provision of the "Payments to Contractor" clause or any other clause of this contract.

b. The sum of \$200,000 has been reserved for this contract and is available for payments to the Contractor during the current fiscal year. It is expected that Congress will make appropriations for future fiscal years from which additional funds together with funds provided by one or more non-federal project sponsors will be reserved for this contract.

c. Failure to make payments in excess of the amount currently reserved, or that may be reserved from time to time, shall not entitle the Contractor to a price adjustment under the terms of this contract except as specifically provided in paragraphs f and i below. No such failure shall constitute a breach of this contract, except that this provision shall not bar a breach-of-contract action if an amount finally determined to be due as a termination allowance remains unpaid for one year due solely to a failure to reserve sufficient additional funds therefore.

d. The Government may at any time reserve additional funds for payments under the contract if there are funds available for such purpose. The Contracting Officer will promptly notify the Contractor of any additional funds reserved for the contract by issuing an administrative modification to the contract.

e. If earnings will be such that funds reserved for the contract will be exhausted before the end of any fiscal year, the Contractor shall give written notice to the Contracting Officer of the estimated date of

exhaustion and the amount of additional funds which will be needed to meet payments due or to become due under the contract during that fiscal year. This notice shall be given not less than 45 nor more than 60 days prior to the estimated date of exhaustion.

f. No payments will be made after exhaustion of funds except to the extent that additional funds are reserved for the contract. The Contractor shall be entitled to simple interest on any payment that the Contracting Officer determines was actually earned under the terms of the contract and would have been made except for exhaustion of funds. Interest shall be computed from the time such payment would otherwise have been made until actually or constructively made, and shall be at the rate established by the Secretary of the Treasury pursuant to Public Law 92-41, 85 STAT 97, as in effect on the first day of the delay in such payment.

g. Any suspension, delay, or interruption of work arising from exhaustion or anticipated exhaustion of funds shall not constitute a breach of this contract and shall not entitle the Contractor to any price adjustment under the "Suspension of Work" clause or in any other manner under this contract.

h. An equitable adjustment in performance time shall be made for any increase in the time required for performance of any part of the work arising from exhaustion of funds or the reasonable anticipation of exhaustion of funds.

i. If, upon the expiration of sixty (60) days after the beginning of the fiscal year following an exhaustion of funds, the Government has failed to reserve sufficient additional funds to cover payments otherwise due, the Contractor, by written notice delivered to the Contracting Officer at any time before such additional funds are reserved, may elect to treat his right to proceed with the work as having been terminated. Such a termination shall be considered a termination for the convenience of the Government.

j. If at any time it becomes apparent that the funds reserved for any fiscal year are in excess of the funds required to meet all payments due or to become due the Contractor because of work performed and to be performed under the contract during the fiscal year, the Government reserves the right, after notice to the Contractor, to reduce said reservation by the amount of such excess. (EFAR 52.232-5000)

SC-4 CONTRACT DRAWINGS, MAPS AND SPECIFICATIONS

a. Upon obtaining the drawings and specifications, the Contractor shall:

- (1) Immediately check the specifications and all drawings;
- (2) Compare the specifications and all drawings and verify the figures before laying out the work;
- (3) Promptly notify the Contracting Officer of any discrepancies; and
- (4) Be responsible for any errors which might have been avoided by complying with this paragraph (b).

b. Large scale drawings shall, in general, govern small scale drawings. Figures marked on drawings shall, in general, be followed in preference to scale measurements.

c. Omissions from the drawings or specifications or the misdescription of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall

not relieve the contractor from performing such omitted or misdescribed details of the work, but shall be performed as if fully and correctly set forth and described in the drawings and specifications.

d. The work shall conform to the specifications and the contract drawings identified on the following, all of which are available in the office of the District Engineer, U.S. Army Engineer District, Philadelphia, Room 643, Wanamaker Building, 100 Penn Square East, Philadelphia, PA 19107. Drawings are titled: "Fort Mifflin Sea Wall Stabilization and Protection Project, Philadelphia County, Pennsylvania" and have the following drawing numbers, subtitles, and dates. (DFARS 252.236-7001)

Drawing No.	Subtitle	Date	Latest Revision Date
57788	List of Drawings, Vicinity and Location Maps and Legend	28 May 03	
57789	General Plan	28 May 03	
57790	Repair Plan, Elevation and Notes, Sta. 0+00 to Sta. 1+00	28 May 03	
57791	Repair Plan, Elevation and Notes, Sta. 1+00 to Sta. 2+00	28 May 03	
57792	Repair Plan, Elevation and Notes, Sta. 2+00 to Sta. 3+00	28 May 03	
57793	Wall Repair Details	28 May 03	
57794	Cross Sections, Sta. 0+00 to Sta. 1+00	28 May 03	
57795	Cross Sections, Sta. 1+25 to Sta. 2+95	28 May 03	
61770	Soundings and Ornamental Fence Details	28 May 03	

SC-5 PHYSICAL DATA (APR 1984)

Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor. (FAR 52.236-4)

a. The indications of physical conditions on the drawings and in the specifications are the result of site investigations by topographic surveys conducted in March 2002 and hydrographic surveys conducted in May 2002.

b. Weather Conditions. The climate of the area is referred to as "continental" by climatologists, characterized by cold winters and moderately hot summers. Complete weather records and reports may be obtained from the local U.S. Weather Bureau Office nearest to the work site. The Contractor shall satisfy himself as to the hazards likely to arise from weather conditions during the construction period.

c. Transportation Facilities. The work site is accessible from Interstate 95. The Contractor shall be responsible for all investigations of load carrying capacities of bridges and roadways.

d. Survey Controls. Survey control description sheets are included as Section 00840 of this contract.

e. Magnitude of the Contract Work. The estimated value of the contract work is between \$250,000 and \$500,000.

f. Hours of Work. Unless otherwise specified, the Contractor shall be permitted to perform the contract work between the hours of 7:45 am and 4:30 pm, Monday through Friday. Federal holidays (New Year's Day, Martin Luther King Jr's Birthday, Presidents Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, and Christmas Day) that fall within the work week will not be considered as work days. Prior to performing any work during hours other than those specified, the Contractor shall submit an overtime request to the Contracting Officer for review and approval. Overtime requests shall be submitted not less than 24 hours prior to the time the Contractor desires to perform the overtime work. The Contractor shall provide at least a 24 hour advanced notification to establish when on-site work will commence and prior to restarting on-site work following any stoppage of work lasting longer than five normal workdays. Notification shall be provided by phone, or person, or in writing, and shall be given directly to the Contracting Officer.

SC-6 LAYOUT OF WORK (APR 1965 OCE)

The Contractor shall lay out its work from Government-established survey controls, the description of which are provided in Section 00840 of this document, and shall be responsible for all measurements in connection therewith. The Contractor shall furnish, at its own expense, such stakes, templates, platforms, equipment, range markers and labor as may be required in laying out any part of the work from the triangulation stations and bench marks established by the Government. The Contractor shall be responsible for executing the work to such lines and grades as may be established or indicated by the Contracting Officer. It shall be the responsibility of the Contractor to maintain and preserve all stakes and other marks established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor or through its negligence prior to their authorized removal, they may be replaced by the Contracting Officer at his discretion. The expense of replacement will be deducted from any amounts due or to become due to the Contractor. (CENAP)

SC-7 DAMAGE TO WORK

The responsibility for damage to any part of the permanent work shall be as set forth in the clause of the contract entitled "Permits and Responsibilities". However, if, in the judgement of the Contracting Officer, any part of the permanent work performed by the Contractor is damaged by flood or hurricane, which damage is not due to the failure of the Contractor to take reasonable precautions or to exercise sound engineering and construction practices in the conduct of the work, the Contractor shall make the repairs as ordered by the Contracting Officer and full compensation for such repairs will be made at the applicable contract unit or lump sum prices as fixed and established in the contract. If, in the opinion of the Contracting Officer, there are no contract unit or lump sum prices applicable to any part of such work, an equitable adjustment pursuant to Contract Clause entitled "Changes," will be made as full compensation for the repairs of that part of the permanent work for which there are no applicable contract unit or lump sum prices. Except as herein provided, damages to all work (including temporary construction), utilities, materials, equipment and plant shall be repaired to the satisfaction of the Contracting Officer at the Contractor's expense regardless of the cause of such damage. (CENAP)

SC-8 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984)

The Contractor shall perform on the site, and with its own organization,

work equivalent to at least twenty (20) percent of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government. (FAR 52.236-1)

SC-9 ENVIRONMENTAL LITIGATION (1974 NOV OCE)

a. If the performance of all or any part of the work is suspended, delayed, or interrupted due to an order of a court of competent jurisdiction as a result of environmental litigation, as defined below, the Contracting Officer, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor or a Subcontractor at any tier not required by the terms of the contract. If it is determined that the order is not due in any part to acts or omissions of the Contractor or a Subcontractor at any tier other than as required by the terms of this contract, such suspension, delay, or interruption shall be considered as if ordered by the Contracting Officer in the administration of this contract under the terms of the SUSPENSION OF WORK clause of this contract. The period of such suspension, delay, or interruption shall be considered unreasonable, and an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) as provided in that clause, subject to all the provisions thereof.

b. The term "environmental litigation", as used herein, means a lawsuit alleging that the work will have an adverse effect on the environment or that the Government has not duly considered, either substantively or procedurally, the effect of the work on the environment. (CENAP)

SC-10 SIGNAL LIGHTS (FEB 1983)

The Contractor shall display signal lights and conduct his operations in accordance with the General Regulations of the Coast Guard governing lights and day signals to be displayed by towing vessels with tows on which no signals can be displayed, vessels working on wrecks, dredges, and vessels engaged in laying cables or pipe or in submarine or bank protection operations, lights to be displayed on dredge pipe lines, and day signals to be displayed by vessels of more than 65 feet in length moored or anchored in a fairway or channel, and the passing by other vessels of floating plant working navigable channels, as approved by the Commandant, U.S. Coast Guard with respect to vessels in inland waters (33 CFR 88), as applicable. (CENAP)

SC-11 QUANTITY SURVEYS (APR 1984)

a. Quantity surveys shall be conducted, and the data derived from these surveys shall be used in computing the quantities of work performed and the actual construction completed and in place.

b. The Contractor shall conduct the original and final surveys and make the computations based on them. The Contractor shall conduct the surveys for any periods for which progress payments are requested and shall make the computations based on these surveys. All surveys conducted by the Contractor shall be conducted under the direction of a representative of the Contracting Officer, unless the Contracting Officer waives this requirement in a specific instance.

c. Promptly upon completing a survey, the Contractor shall furnish the originals of all field notes and all other records relating to the survey or to the layout of the work to the Contracting Officer, who shall use them

as necessary to determine the amount of progress payments. The Contractor shall retain copies of all such material furnished to the Contracting Officer. (FAR 52.236-16)

SC-12 EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE (MAR 1995)

a. This clause does not apply to terminations. See 52.249-5000, Basis for Settlement of Proposals, and FAR Part 49.

b. Allowable cost for construction and marine plant and equipment in sound workable condition owned or controlled and furnished by the Contractor or sub-contractor at any tier shall be based on actual cost data for each piece of equipment or groups of similar serial or series for which the Government can determine both ownership and operating costs from the Contractor's accounting records. When both ownership and operating costs cannot be determined for any piece of equipment from the Contractor's accounting records, costs for the equipment shall be based upon the applicable provisions of EP 1110-1-8, "Construction Equipment Ownership and Operating Expense Schedule," Region I. Working conditions shall be considered to be average for determining equipment rates using the schedule unless specified otherwise by the Contracting Officer. For equipment not included in the schedule, rates for comparable pieces of equipment may be used or a rate may be developed using the formula provided in the schedule. For forward pricing, the schedule in effect at the time of negotiations shall apply. For retrospective pricing, the schedule in effect as of the time work was performed shall apply.

c. Equipment rental costs are allowable, subject to the provisions of FAR 31.205(d)(ii) and FAR 31.205-36. Rates for equipment rented from an organization under common control, lease-purchase arrangements, and sale-leaseback arrangements, will be determined using the schedule, except that actual rates will be used for equipment leased from an organization under common control that has an established practice of leasing the same or similar equipment to unaffiliated lessees.

d. When actual equipment costs are proposed and the total amount of the pricing action exceeds the small purchase threshold, the contracting officer shall request the contractor to submit either certified cost or pricing data, or partial/limited data, as appropriate. This data shall be submitted on Standard Form 1411, "Contract Pricing Proposal Cover Sheet." (EFARS 52.231-5000)

Note #1: The small purchase threshold is \$100,000.

Note #2: By submitting cost or pricing data, the Contractor grants to the Contracting Officer or an authorizing representative the right to examine those books, records, documents and other supporting data that will permit evaluation of the proposed equipment costs. This right shall extend for two years after expiration of contract performance. After price agreement the Contractor shall certify that the equipment costs or pricing data submitted are accurate, complete and current.

SC-13 CERTIFICATES OF COMPLIANCE

Any certificates required for demonstrating proof of compliance of materials with specifications requirements shall be executed in triplicate copies. Each certificate shall be signed by an official authorized to certify on behalf of the manufacturing company and shall contain the name and address of the Contractor, the project name and location, and the

quantity and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the date or dates of the tests to which the report applies. Certification shall not be construed as relieving the Contractor from furnishing satisfactory material, if, after tests are performed on selected samples, the material is found not to meet the specific requirements. (CENAP)

SC-14 PERFORMANCE EVALUATION OF CONTRACTOR

a. As a minimum, the Contractor's performance will be evaluated upon final acceptance of the work. However, interim evaluation may be prepared at any time during contract performance when determined to be in the best interest of the Government.

b. The format for the evaluation will be DD 2626, and the Contractor will be rated either outstanding, above average, satisfactory, marginal, or unsatisfactory in the areas of Contractor Quality Control, Timely Performance, Effectiveness of Management, Compliance with Labor Standards, and Compliance with Safety Standards. The Contractor will be advised of any unsatisfactory rating, either in an individual element or in the overall rating, prior to completing the evaluation, and all Contractor comments will be made a part of the official record. Performance Evaluation Reports will be available to all DOD Contracting offices for their future use in determining Contractor responsibility, in compliance with DFARS 236.201(c)(1). (CENAP)

SC-15 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER (OCT 1989)

a. This clause specifies the procedure for determination of time extensions for unusually severe weather in accordance with the Contract Clause entitled: "Default (Fixed-Price Construction)". In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:

(1) The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

(2) The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the Contractor.

b. The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities. For the purpose of this contract, unusually severe weather is defined as daily precipitation equal to or exceeding 0.5 inches and/or maximum daily temperature not exceeding 32 degrees F.

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY
WORK DAYS BASED ON (5) DAY WORK WEEK

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
7	4	2	2	2	2	2	2	1	1	2	3

c. Upon acknowledgment of the Notice to Proceed (NTP) and continuing throughout the contract, the Contractor shall record on the daily CQC report, the occurrence of adverse weather and resultant impact to normal scheduled work. Actual adverse weather days must prevent work on critical activities for 50 percent or more of the Contractor's scheduled work day. The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated in paragraph b. above, the Contracting Officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the contract clause entitled: "Default (Fixed Price Construction)". (ER 415-1-15)

SC-16 INSURANCE REQUIREMENTS

Evidence of the following insurance shall be provided to the Contracting Officer prior to commencement of work and shall be maintained throughout the period of performance:

a. General Liability Insurance (Comprehensive form of policy): Bodily Injury Liability - \$500,000 per occurrence.

b. Automobile Liability Insurance (Comprehensive form of policy): Bodily Injury Liability - \$200,000 per person and \$500,000 per accident. Property Damage Liability - \$20,000 per accident.

c. Workmen's Compensation and Employer's Liability Insurance: Compliance with applicable workmen's compensation and occupational disease statutes is required. Employer's liability coverage in the minimum amount of \$100,000 is also required."

d. Applicable Marine Casualty and Marine Workmen's Compensation Insurance: As appropriate for this contract.

-- End of Special Clauses --

Section 00805

Contract Administration Data

1. Accounting and Appropriation Data: To be furnished at time of award
2. Contract Administration will be performed by :

U. S. Army Engineer District, Philadelphia
Attn: CENAP-EC-CS
Wanamaker Bldg, Rm 743
100 Penn Square East
Philadelphia, PA 19107-3390
(215) 656-6612

3. Payment by:

U. S. Army Corps of Engineers Finance Center
5722 Integrity Drive
Millington, TN 38054-5005

4. Billing Address: Invoices shall be forwarded to:

U. S. Army Engineer District, Philadelphia
Attn: CENAP-EC-CS
Wanamaker Bldg, Rm 743
Philadelphia, PA 19107-3390

This page was intentionally left blank for duplex printing.

General Decision Number PA020006

Superseded General Decision No. PA010006

State: Pennsylvania Construction Type:

HEAVY HIGHWAY

County(ies):

BUCKS DELAWARE PHILADELPHIA

CHESTER MONTGOMERY

HEAVY AND HIGHWAY CONSTRUCTION PROJECTS

Modification Number Publication Date

0	03/01/2002
1	05/03/2002
2	06/28/2002
3	07/12/2002
4	08/02/2002
5	10/04/2002
6	10/11/2002
7	11/01/2002
8	01/03/2003
9	01/17/2003
10	01/24/2003
11	02/07/2003
12	03/28/2003
13	04/11/2003

COUNTY(ies):

BUCKS DELAWARE PHILADELPHIA

CHESTER MONTGOMERY

BOIL0013C 08/30/2002

	Rates	Fringes
BOILERMAKERS	31.13	14.84

CARP0454D 07/01/2002

	Rates	Fringes
PILEDRIVERMEN	28.50	17.74+A

FOOTNOTE:

A. PAID HOLIDAYS: Washington's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (provided the employee works the day before the holiday and the day after the holiday)

CARP0612A 05/01/2002

	Rates	Fringes
CARPENTERS	28.40	13.96+A

FOOTNOTE:

A. PAID HOLIDAY: Labor Day

CARP1906A 07/01/2002

	Rates	Fringes
MILLWRIGHTS	27.77	14.96

ELEC0098A 09/02/2002

	Rates	Fringes
BUCKS COUNTY: Starting at the Delaware River and following the west limits of the Borough of Bristol, along the continuation of U.S. Highway 13 and under the Pennsylvania Railroad Bridge to Route 09113, north 09113 to Route 152, north along Route 152 to the Humeville Road, east on Humeville Road to Route 333, north		

on Route 344 to the junction of Spurs 281 and 252, continue north on Spur 252 to Route 09028, west on 09028 to Route 152, north on 152 to TR 232, north on TR 532 to Tr 113, north on TR 113 to TR 232 at Anchor Inn, northeast on TR 232 and continue northeast along Route 659 to Route 09060, west on 09060 to Route 402, north on 402 to the Borough line at the southwest corner of the Borough of New Hope. The Borough of New Hope is excluded. Starting at the Delaware at the Delaware River and proceeding southwest along the Plumstead-Solebury and the Plumstead-Buckingham Township lines to Route 09064, northwest on 09064 to U.S. Highway 611 south on 611 to the spur of Route 270, northwest along the spur to Route 397, Southwest on 397 to Route 350, southeast on 350 to Route 395, southwest on 395 to Route 09060, southeast on 09069 to Route 09041 southwest on 09041 to the Montgomery County line.

DELAWARE COUNTY: That portion east of a line following State Highway 320 from Montgomery County to Maple, then along the Springfield Road to Saxer Ave, along Saxer Avenue to Powell Road, along Powell Road to State Highway 420 and continuing in a straight line to the Delaware River.

MONTGOMERY COUNTY: That portion southeast of a line following Lower State Road from Bucks County southwest to the Bethlehem Pike (U.S Highway 309), south on the Bethlehem Pike to the Penllyn Pike, southwest on the Penllyn and Blue Bell Pikes to the Wissahickon Creek, southeast on the Wissahickon Creek to the Butler Pike to North Lane near Conshohocken Borough, southwest on North Lane to Schuylkill River and continuing southeast in a line to the Spring Mill Road and southwest on the Spring Mill Road to Delaware County.

PHILADELPHIA COUNTY

ELECTRICIANS	34.69	14.11
--------------	-------	-------

ELEC0102D 05/01/2000

	Rates	Fringes
BUCKS COUNTY (Plumstead, Bedminster, Tinicum, Nockomixon, Bridgeton and Durham Townships in their entireties, and that portion of Haycock and Springfield Townships east of a line following State Highway 412, from Northampton County south to Route 09071 to State Highway 212, along Highway 212 to Route 09068, and along 09068 to State Highway 313. Also included is that portion of Dublin Borough east of State Highway 313		

ELECTRICIANS	31.31	37.75%
--------------	-------	--------

ELEC0126D 12/03/2000

	Rates	Fringes
CHESTER, DELAWARE, MONTGOMERY, PHILADELPHIA, AND REMAINDER OF BUCKS COUNTY		

LINE CONSTRUCTION:

Lineman	32.23	18%+3.30
Winch Truck Operator	22.56	18%+3.30
Truck Driver	20.95	18%+3.30
Groundman	19.34	18%+3.30

ELEC0269A 10/01/2000

	Rates	Fringes
BUCKS COUNTY (Area East of a line starting at the Delaware River and following the west limits of the Borough of Bristol, along		

the continuation of U.S. Highway 13 and under the Pennsylvania Railroad Bridge to Route 09113, north along 09113 to route 152, north along route 152 to the Hulmeville Rd., east on the Hulmeville to Route 344, north on route 344 to the junction of Spurs 281 and 252 continue north on spur 252 and route 09028, west on 09028 to Route 152, north on 152 to TR 532, north on TR 532 to TR 113, north on TR 113 to TR 232 as Anchor Inn, northeast on TR 232 and continue northeast along 659 to Route 09060, West on 09060 to Route 402, north on 402 to the Borough Line at the southwest corner of the Borough of New Hope; including the Boroughs of New Hope and Bristol)

ELECTRICIANS	33.08	29%+5.00
--------------	-------	----------

* ELEC0269C 04/01/2003

	Rates	Fringes
BUCKS COUNTY - That portion east of a line starting at the Delaware River and following the west limits of the Borough of Bristol, along the continuation of U.S. Highway 13 and under the Pennsylvania Railroad Bridge to Route 09113, north along 09113 to route 152, north along route 152 to the Hulmeville Rd., east on the Hulmeville to Route 344, north on route 344 to the junction of Spurs 281 and 252 continue north on spur 252 and route 09028, west on 09028 to Route 152, north on 152 to TR 532, north on TR 532 to TR 113, north on TR 113 to TR 232 as Anchor Inn, northeast on TR 232 and continue northeast along 659 to Route 09060, West on 09060 to Route 402, north on 402 to the Borough Line at the southwest corner of the Borough of New Hope. The Boroughs of New Hope and Bristol are included.		

LINE CONSTRUCTION:

Lineman, Cable Splicer,		
Heavy Equipment Operator	37.21	44.3%
Groundman, Truck Driver,		
and Winch Operator	29.77	44.3%

ELEC0313G 12/01/2000

	Rates	Fringes
DELAWARE COUNTY : (That portion south of U.S. Highway No. 1 and west of U.S. Highway No. 202) Chester County (That portion South and east of U. S. Highway 1)		

ELECTRICIANS	26.82	47.62%
--------------	-------	--------

ELEC0375A 12/01/2002

	Rates	Fringes
BUCKS COUNTY (East Rock Hill, West Rock Hill, Milford and Richland Townships in their entirety and that portion of Haycock and Springfield Townships west of a line following State Highway 212 from Northampton County South to Route 09071 along 09071 to state Highway 212, along Highway 212 to Route 09068 and along 09068 to State Highway 313) MONTGOMERY COUNTY (Upper Hanover Twp. in its entirety)		

ELECTRICIANS	29.86	15%+3.25
--------------	-------	----------

ELEC0380A 09/01/2002

	Rates	Fringes
BUCKS COUNTY (Hilltown and New Britain Townships in their entirety; that portion of Telford Borough Northeast of County Line Road (Main Street) and bounded by West Rock Hill and		

Hilltown Township that portion of Dublin Borough West of State Highway 313, and that portion of Doylestown and Warrington Townships and Doylestown Borough Northwest of a line following U.S. Highway 611 South from Route 09064 to the spur of Route 270, and proceeding Northwest along the spur to Route 397, Southwest on 397 to Route 350, Southeast on 350 to Route 395, Southwest on 395 to Route 09069, Southeast on 09069 to Route 09041, Southwest on 09041 to the Montgomery County Line)

DELAWARE COUNTY (The portion of Radnor Township North of U.S Highway 30 and West of State Highway 320)

MONTGOMERY COUNTY (The portion Northwest of a line following Lower State Road from Bucks County Southwest to Bethlehem Pike (U.S. Highway 309), South on Bethlehem Pike to Penllyn Pike, Southwest on the Penllyn and Blue Bell Pikes to Wissahickon Creek to the Butler Pike, Southwest Wissahickon Creek to Butler Pike, Southwest on Butler Pike, to North Lane near Conshohocken Borough, Southeast on North Lane to the Schuylkill River and continuing Southeast in a line to Spring Mill Road, Southwest on Spring Mill Road to Delaware County; but excluding Upper Hanover, Douglas, Upper Pottsgrove, West Pottsgrove Townships and also excluding that portion of the Borough of Pottstown North and West of a line drawn Northeast on Kein Street from the Schuylkill River to Reading Railroad Northwest on the railroad to Madison Street, to High Street, East on High Street to Green Street, North on Green Street and Northeast on Mintzer Street to Lower Pottsgrove Township Line, along this township line and the borough line Northwest to Adams Street and Beehive Road, Northeast on Beehive Road to the Township Line at Mervine Street)

CHESTER COUNTY (East Coventry. East Vincent, West Vincent, East Pikeland, West Pikeland, Uwchlan, Upper Uwchlan, East Brandywine, Schuylkill and Charleston Townships in their entirety, and that portion of Clan, East Clan, East Whiteland & West Whiteland, Tredyffrin, Willistown, Easttown Townships and Borough of Downingtown north of U. S.Highway 30)

ELECTRICIANS	33.08	35%
--------------	-------	-----

ELEC0654A 06/04/2001

	Rates	Fringes
--	-------	---------

DELAWARE COUNTY (The portion south of U.S. Highway 30 and north of that part U.S. Highway 1 between U.S. Highway 202 and the Chester County Line, and east of that part of U.S. Highway 202 between U.S. Highway 1 and the Delaware Line, and west of a line extending from Montgomery County along State Route 320 to Maple, then along the Springfield Road to Saxer Avenue, along Saxer Avenue to Powell Road; along Powell Road to State Highway 420; along 420 and continuing in a straight line to the Delaware River in the State of Pennsylvania) CHESTER COUNTY (That portion south of U. S. Highway 30 and north of that part of U.S. Highway 1)

ELECTRICIANS	30.44	4.87+8.74%
--------------	-------	------------

ELEC0743A 09/01/2001

	Rates	Fringes
--	-------	---------

CHESTER (Coatesville, Honey Brook, South Coventy, Valley, Wallace, Warwick, West Brandywine, West Clan, and West Nantmeal Twps); AND MONTGOMERY (Douglas, Pottstown, Upper Pottsgrove, and West Pottsgrove, Twps) COUNTIES

ELECTRICIANS	24.55	3%+7.37

ELEC0743G 09/01/2001		
	Rates	Fringes
CHESTER COUNTY (The portion of Sadsbury and West Sadsbury Township north of U.S. Highway 30)		
ELECTRICIANS	23.44	3%+7.37

ENGI0542D 05/01/2002		
	Rates	Fringes
POWER EQUIPMENT OPERATORS:		
HEAVY, HIGHWAY, AND WATER LINE CONSTRUCTION (Off Plant Site)		
GROUP 1	27.77	14.44+A
GROUP 2	27.52	14.37+A
GROUP 3	24.05	12.55+A
GROUP 4	23.74	12.47+A
GROUP 5	22.02	11.96+A
GROUP 6	21.03	11.67+A
POWER EQUIPMENT OPERATORS CLASSIFICATIONS		
GROUP 1: Handling steel and stone in connection with erection, cranes doing hook work, any machine handling machinery, helicopters, concrete pumps building machines similar to the above, including remote control equipment.		
GROUP 2: All types of cranes, All types of backhoes, Cableways, Draglines, Keystones, all types of shovels, Derricks, Pavers 21E and over, Trenching machines, Trench shovel, Graddalls, Front-End loaders, Boat Captain, Pippin type backhoes, Tandems scrapers, Towers type crane operation erecting, Dismantling, Jumping or Jacking, Drills (self-contained), (drillmaster type) forklift (20 ft. and over), Moter patrols (fine grade), Batch plant with mixer, Carryalls, Scraper, Trounapulls, Roller (Hith Grade Finishing), Spreaders (asphalt), Bulldozers and Tractors, Mechanic welder, Conveyor loaders (euclid-type wheel), Concrete pump, Milling Machines, Hoist with two towers, Building hoist double drum (unless used as a single drum), Mucking machines in tunnel, All auto grade and concrete finishing machines, Bundle pullers/extractors (tublar), toxic/hazardous waste removal rate 20 per cent added to all classification, bobcat, side broom, directional boring machines, vermeet saw type machines (other than hand held) tractor mounted hydro axe, chipper with boom, all machine similar to the above includidng remote control equipment.		
GROUP 3: Asphalt plant engineers, Well drillers, Ditch witch (small trencher), Motor patrols, Fine grade machines, Ten-ton roller (grade fill stone base), Concrete breaking machines, Guilloline only, Stump grinder, Conveyors (except building conveyors), Fork lift trucks of all types, High pressure boliers, Machine similar to the above, including remote control equipment.		
GROUP 4: Seaman, Pulverzer form line grader, Farm tractors, road finishing, Concrete spreader, Power broom (self-contained), Seed spreader, Grease truck.		
GROUP 5: Compressors pumps, Well point pumps, Welding machines Tireman, Power equipment, Maintenance engineer (power boats), and macnines similar to the above.		
GROUP 6: Fireman, Oilers and deck hands (personnel Boats), grease truck.		

FOOTNOTE:

A. PAID HOLIDAYS: New Year's Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day and Christmas Day
TOXIC/HAZARDOUS WASTE REMOVAL* Add 20 per cent to basic hourly rate for all classifications

IRON0068D	07/01/2002	
	Rates	Fringes
BUCKS COUNTY (Remainder)		
IRONWORKERS, Structural, Ornamental, and Reinforcing	27.76	22.35

IRON0161A	07/01/2002	
	Rates	Fringes
BUCKS COUNTY (Includes the towns of Bensalem, Breadysville, Bristol, Churchville, Cornwells Heights, Davisville, Eddington, Feasterville, Hartsville, Johnsville, Line Lexington, Neshaminy, Southhampton, Tradesville, Trevose, Unionville, Warminster, and Warrington), DELAWARE (North of a line running along State Route 352 to right on Stae Route 291 to State Line); CHESTER (Includes the towns of Alsham, Anselma, Bacton, Berwyn, Cedar Hollow, Charlestown, Chester Springs, Cromby, Devon, Devault, Daylesford, Diamond Rock, Dutton Mill, Frazer, Goshenville, Howellville, Kimberton, Ludwig Corner, Paoli, Matthews, Perkiomen Junction, Phoenixville, Rapps Corner, Rocky Hill, Strafford, Sugartown, Tanguy, Valley Forge, Valley Store, White Horse, Williams Corner); MONTGOMERY (Remainder); and PHILADELPHIA COUNTIES		
IRONWORKERS:		
Rigger and Machinery Mover	28.65	14.00

IRON0401A	07/01/2002	
	Rates	Fringes
BUCKS (Includes the towns of BEnsalem, Breadysville, Bristol Churchville, Cornwells Heights, Davisville, Eddington, Feasterville, Hartsville, Johnsville, Line Lexington, Neshaminy, Southhampton, Tradesville, Trevose, Unionville, Warminster, and Warrington): DELAWARE (North of a line running along State Rt 352 to right on State Rt 291 to State Line); CHESTER (Includes the towns of Aldham, Anselma, Bacton, Berwyn, Cedar Hollow, Charlestown, Chester Springs, Cromby, Devon, Devault, Daylesford, Diamond Rock, Dutton Mill, Frazer, Goshenville, Howellville, Kimberton, Ludwigs Corner, Paoli, Matthews, Perkiomen Junction, Phoenixville, Rapps Corner, Rocky Hill, Strattford, Sugartown, Tanguy, Valley Forge, Valley Store, White Horse, Williams Corner, and Wilsons Corner); MONTGOMERY (Remainder); and PHILADELPHIA COUNTIES		
IRONWORKERS:		
Structural and Ornamental	33.75	15.75

IRON0405A	07/01/2002	
	Rates	Fringes
BUCKS (Includes the towns of Bensalem, Breadysville, Bristol, Churchville, Cornwell Heights, Davisville, Eddington, Festerville, Hartsville, Johnsville, Line Lexington, Neshaminy, Southhampton, Transville, Trevose, Unionville, Warminster, and Warrington), DELAWARE (North of a line running along State Route 352 to right on State Route 291 to State Line); CHESTER (Includes		

the towns of Aldham, Anselma, Bacton, Berwyn, Cedar Hollow, Charlestown Chester Springs, Cromby, Devon, Devault, Daylesford, Diamond Rock, Dutton Mill, Frazer, Goshenville, Howellville, Kimberton, Ludwigs Corner, Paoli, Mathews, Perkiomen Junction, Phoenixville, Rapps Corner, Rocky Hill, Strafford, Sugartown, Tanguy, Valley Forge, Valley Store, White Horse, Williams Corner, and Wilsons Corner); MONTGOMERY (Remainder); AND PHILDELPHIA COUNTIES

IRONWORKERS:

Reinforcing Steel Mesh,		
Rebar Work	29.29	14.55

IRON0420G 07/01/2002

	Rates	Fringes
MONTGOMERY COUNTY (Anise, Berguy, Congo, Douglas, East Greenfield, East Limerick, East Slaford, East Zieglerville, Engleville, Fagleysville, Ford, Gilbertsville, Green Lane, Hanover, New Perksionenville, Niato, Palm, Obelish, Pennsburg, Perkiomen, Pottstown, Royerford, Roytown, Sammamansville, Tylerport, Upper Hanover, Upper Pottsgrove, Upper Wodall, West Limerick, West Salford, and West Zieglerville Townships)		

IRONWORKERS:

Projects \$100,000,000 and greater, all work	23.25	12.95
Projects less than \$100,000,000	22.75	12.95

IRON0451D 07/01/2002

	Rates	Fringes
CHESTER (Remainder of County), AND DELAWARE (Remainder of County) COUNTIES		

IRONWORKERS:

Structural, Ornamental, and Reinforcing	25.60	15.05
---	-------	-------

LABO0401A 05/01/2002

	Rates	Fringes
LABORERS:		
GROUP 1	20.60	13.75
GROUP 2	20.40	13.75
GROUP 3	20.30	13.75
GROUP 4	20.45	13.75
GROUP 5	20.20	13.75
GROUP 6	20.85	13.75
GROUP 7	20.70	13.75
GROUP 8	20.55	13.75
GROUP 9	21.10	13.75
GROUP 10	15.00	13.75
GROUP 11	20.60	13.75
GROUP 12	24.29	13.75

LABORERS CLASSIFICATIONS

GROUP 1: Multiple wagon drill operator
GROUP 2: Finished surface asphalt raker; pipelayers; conduit and duct layer; jackhammer operator; paving breaker; experienced pipelayer or caulker (all joints up to within 5 ft of building foundation line)
GROUP 3: Other pneumatic tool operators; laborers stripping concrete forms, carrying or handling lumber, steel, steel mesh,

and other concrete materials; form pinners; tool room men; mortar mixers; concrete pitman & spaders; grademen; asphalt shovelers; setting cut stone, granite or artificial stone; hod carriers; scaffold builders; all other laborers with the exception of workers in compressed air, relief joints and approach slab; men working in sheeting, pouring concrete, assembling and placing gabians

GROUP 4: Wagon drill operators

GROUP 5: Yard workers: Laborers, sscale mixmen, burnermen, dustmen, feeder

GROUP 6: Free air tunnel: Miner bore driver, blaster, drillers pneumatic shield operator; miners

GROUP 7: Form setters; circular caisson excavation bottom men underpinning excavation bottom men, welders, burner and air tugger

GROUP 8: Trackmen; brakemen; groutmen; bottom shaft men; all others in free air tunnels

GROUP 9: Welders and burners

GROUP 10: Flaggers

GROUP 11: Powderman

GROUP 12: Toxic/hazardous waste handler

LABO0402A	01/01/2003		
		Rates	Fringes
LANDSCAPING:			
Landscape Laborers		16.48	11.98+A
Farm Tractor Driver, Hydroseeder			
Nozzleman, Mulcher Nozzleman		16.98	11.98+A
FOOTNOTE:			
A. PAID HOLIDAYS:	Independence Day, Labor Day, and Thanksgiving Day		

PAIN0021D	05/01/2002		
		Rates	Fringes
PAINTERS		27.46	12.50
Bridge		30.99	12.50

PLAS0592A	05/01/2002		
		Rates	Fringes
CEMENT MASONS		23.95	15.19

PLUM0420A	05/01/2002		
		Rates	Fringes
STEAMFITTERS		33.19	14.42

PLUM0690H	11/01/2002		
		Rates	Fringes
PLUMBERS		32.99	14.60

TEAM0470B	05/01/2001		
		Rates	Fringes
TRUCK DRIVERS:			
GROUP 1		19.60	8.0725+A+B
GROUP 2		19.70	8.0725+A+B
GROUP 3		19.95	8.0725+A+B

FOOTNOTES FOR TRUCK DRIVERS:

A. PAID VACATION: Employee will earn one vacation day for

every two months up to a maximum of five vacation days per calendar year. During each two consecutive months period, employee must have worked twenty-six days in that two month period. After 130 workdays the employee will be entitled to all days of vacation.

- B. PAID HOLIDAYS: Memorial Day, Independence Day, Labor Day and Veterans Day and five personal holidays provided such employee works the scheduled work day before and after said holiday; and employee gives employer one week's notice requesting a personal holiday. The eligibility for personal holiday every two months up to a maximum of five consecutive month period, employee must have worked 26 days in that two month period. After 130 work days the employee will be entitled to all personal holidays.

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1 - Stake body truck (single axle, dumpster)

GROUP 2 - Dump trucks, tandem and batch trucks, semi-trailers, agitator mixer trucks, and dumpcrete type vehicles, asphalt distributors, farm tractor when used for transportation, stake body truck (tandem)

GROUP 3 - Euclid type, off-highway equipment or belly dump trucks and double hitched equipment, staddle (ross) carrier, low-bed trailers

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(ii)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations

Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

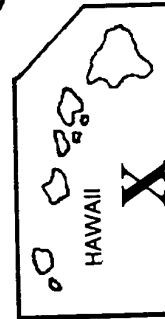
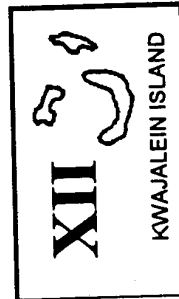
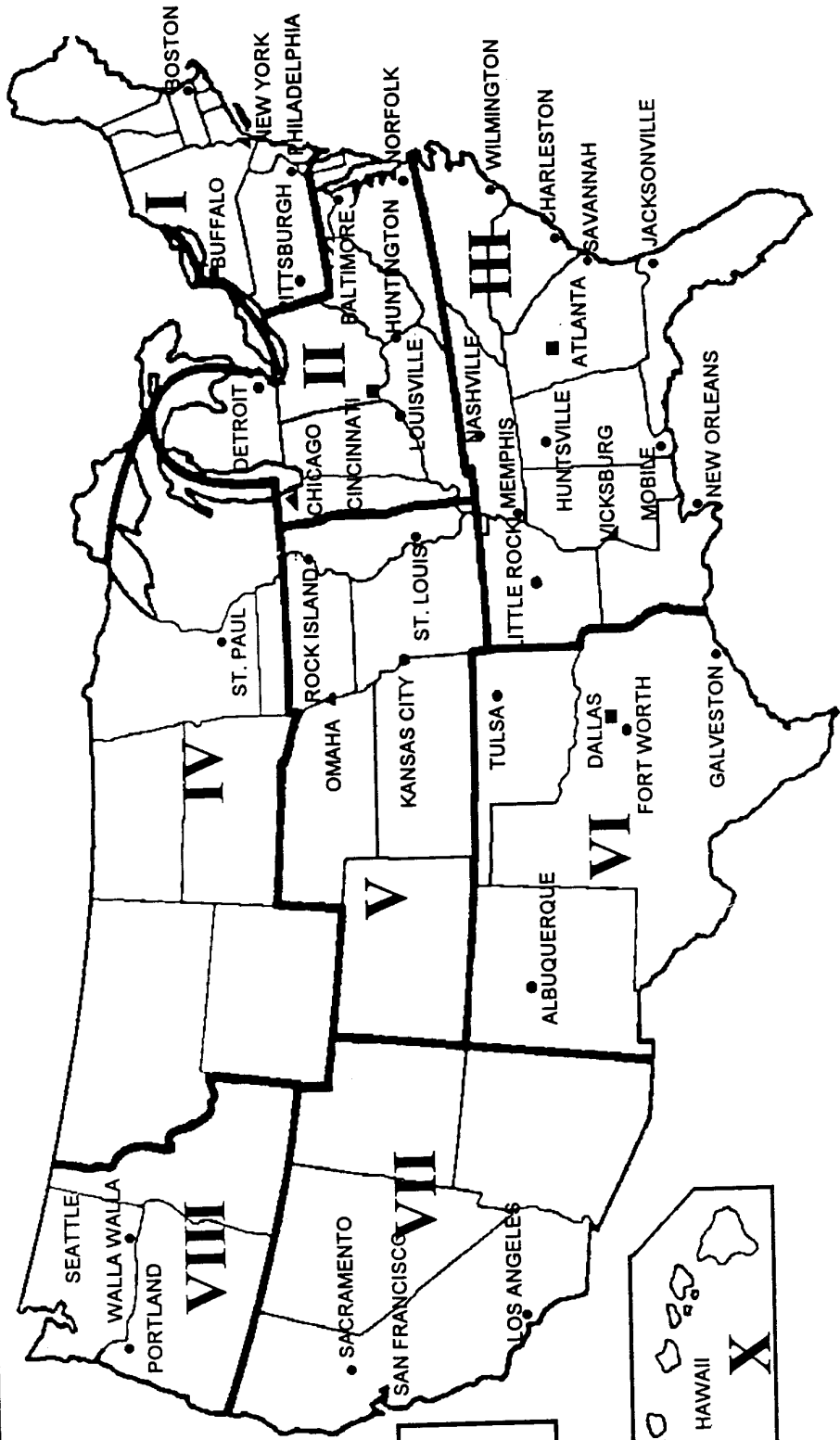
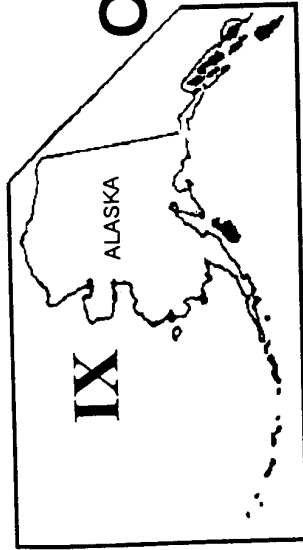
3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

Regions for the Construction Equipment Ownership and Operating Expense Schedule



This page was intentionally left blank for duplex printing.

```

JU4503 *****
JU4503 DESIGNATION - FORT 2
JU4503 PID - JU4503
JU4503 STATE/COUNTY- PA/PHILADELPHIA
JU4503 USGS QUAD - WOODBURY (1995)
JU4503
JU4503 *CURRENT SURVEY CONTROL
JU4503
JU4503* NAD 83(1996)- 39 52 27.99330(N) 075 12 32.77146(W) ADJUSTED
JU4503* NAVD 88 - 2.7 (meters) 9. (feet) GPS OBS
JU4503
JU4503 X - 1,251,348.628 (meters) COMP
JU4503 Y - -4,739,213.149 (meters) COMP
JU4503 Z - 4,067,276.934 (meters) COMP
JU4503 LAPLACE CORR- 1.08 (seconds) DEFLEC99
JU4503 ELLIP HEIGHT- -30.18 (meters) GPS OBS
JU4503 GEOID HEIGHT- -32.93 (meters) GEOID99
JU4503
JU4503 HORZ ORDER - FIRST
JU4503 ELLP ORDER - FOURTH CLASS II
JU4503
JU4503.The horizontal coordinates were established by GPS observations
JU4503.and adjusted by the National Geodetic Survey in May 1999.
JU4503
JU4503.The orthometric height was determined by GPS observations and a
JU4503.high-resolution geoid model.
JU4503
JU4503.The X, Y, and Z were computed from the position and the ellipsoidal ht.
JU4503
JU4503.The Laplace correction was computed from DEFLEC99 derived deflections.
JU4503
JU4503.The ellipsoidal height was determined by GPS observations
JU4503.and is referenced to NAD 83.
JU4503
JU4503.The geoid height was determined by GEOID99.
JU4503
JU4503; North East Units Scale Converge.
JU4503;SPC PA S - 63,209.008 817,345.985 MT 1.00000973 +1 38 54.7
JU4503;SPC NJ - 115,815.383 89,341.971 MT 0.99994528 -0 27 16.7
JU4503;UTM 18 - 4,413,842.644 482,118.360 MT 0.99960394 -0 08 02.6
JU4503
JU4503 SUPERSEDED SURVEY CONTROL
JU4503
JU4503 NAD 83(1992)- 39 52 27.99266(N) 075 12 32.77154(W) AD( ) 1
JU4503 ELLIP HT - -30.23 (m) GP( ) 4 1
JU4503
JU4503.Superseded values are not recommended for survey control.
JU4503.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
JU4503.See file dsdata.txt to determine how the superseded data were derived.
JU4503
JU4503_MARKER: DD = SURVEY DISK
JU4503_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
JU4503_STAMPING: FORT 2 1987
JU4503_MARK LOGO: PA6540
JU4503_MAGNETIC: N = NO MAGNETIC MATERIAL
JU4503_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
JU4503+STABILITY: SURFACE MOTION
JU4503_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
JU4503+SATELLITE: SATELLITE OBSERVATIONS - January 11, 1999
JU4503
JU4503 HISTORY - Date Condition Report By
JU4503 HISTORY - 1987 MONUMENTED PA6540
JU4503 HISTORY - 19930601 GOOD ADRGS

```

JU4503 HISTORY - 19990111 GOOD NJGS

JU4503

JU4503 STATION DESCRIPTION

JU4503

JU4503'DESCRIBED BY ADR GEODETIC SERVICES 1993

JU4503'THE STATION IS LOCATED IN THE 40TH WARD OF THE CITY OF PHILADELPHIA,
JU4503'AN INDUSTRIALIZED SECTION OF THE CITY, ON A U.S. GOVERNMENT
JU4503'RESERVATION (U.S. ARMY CORPS OF ENGINEERS FACILITY) ADJACENT TO THE
JU4503'OLD FORT MIFFLIN HISTORICAL AREA ON THE WESTERLY SIDE OF THE DELAWARE
JU4503'RIVER. IT IS ON THE EASTERLY FACE OF SOUTH PIER, KNOWN AS PIER 2, ON
JU4503'THE UPSTREAM OUTSHORE CORNER OF THE DOWNSTREAM PIER. IT IS A STANDARD
JU4503'DISC SET FLUSH IN THE CONCRETE PIER IN A DRILL HOLE THAT WAS USED BY
JU4503'THE USCE AS STATION FORT. REFERENCE MARK 1 IS A CROSSCUT ON THE
JU4503'SOUTHWEST CORNER OF THE BASE OF THE UPSTREAM MOORING POST, 47.52 FT
JU4503'(14.48 M) NORTHEAST OF FORT 2. REFERENCE MARK 2 IS A CROSSCUT ON THE
JU4503'UPSTREAM FACE OF THE DOWNSTREAM MORNING POST OF THE BOAT RAMP, 29.91
JU4503'FT (9.12 M) WEST OF FORT 2. SEE DESCRIPTION FOR USC AND GS FORT.
JU4503'TO REACH THE STATION FROM SOUTHBOUND I-95, TAKE THE ENTERPRISE AVENUE
JU4503'EXIT OFF OF I-95, AND GO WEST ON ENTERPRISE AVENUE FOR 0.8 MI
JU4503'(1.3 KM) TO ISLAND AVENUE. TURN LEFT AT PHILADELPHIA INTERNATIONAL
JU4503'AIRPORT ONTO ISLAND AVENUE AND GO SOUTH FOR FOR 0.4 MI (0.6 KM)
JU4503'STRAIGHT, THEN CONTINUING AROUND TO THE LEFT, STILL ON ISLAND AVENUE
JU4503'FOR ANOTHER 0.5 MI (0.8 KM) TO HOG ISLAND ROAD. TURN LEFT ONTO HOG
JU4503'ISLAND ROAD AND GO 0.05 MI (0.08 KM) TO THE ENTRANCE, ON THE RIGHT,
JU4503'TO OLD HISTORIC FORT MIFFLIN AND THE U.S. CORPS OF ENGINEERS
JU4503'FACILITY. TURN RIGHT, CONTINUING STRAIGHT FOR 0.3 MI, ENTERING THE
JU4503'GATE OF THE FORT AND THEN THROUGH THE USCE GATE, TO THE SOUTH PIER
JU4503'AND THE STATION.

JU4503'TO REACH FROM WESTBOUND I-76, TAKE THE PENROSE AVENUE/26TH STREET EXIT
JU4503'OFF OF I-76E (SCHUYLKILL EXPRESSWAY). GO SOUTH ON 26TH STREET FOR 1.0
JU4503'MI (1.6 KM) TO PENROSE AVENUE. TURN RIGHT ONTO PENROSE AVENUE AND GO
JU4503'SOUTHWEST FOR 2.5 MI (4.0 KM) TO ISLAND AVENUE. TURN LEFT AT
JU4503'PHILADELPHIA INTERNATIONAL AIRPORT ONTO ISLAND AVENUE.

JU4503

JU4503 STATION RECOVERY (1999)

JU4503

JU4503'RECOVERY NOTE BY NEW JERSEY GEODETIC SURVEY 1999 (ECB)

JU4503'TO REACH THE STATION FROM SOUTH BOUND ROUTE I-95 AFTER CROSSING THE
JU4503'SCHUYLKILL RIVER TAKE THE EXIT FOR ENTERPRISE AVE. AND GO 0.6MI TO
JU4503'FORT MIFFLIN ROAD ON THE LEFT. GO 1.05MI ON FORT MIFFLIN ROAD TO THE
JU4503'ENTRANCE DRIVE TO OLD FORT MIFFLIN ON THE LEFT.TURN LEFT AND GO 0.3MI
JU4503'TO THE STATION AHEAD AT THE END OF THE PIER.

16 FEB 1977

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
RECOVERY NOTE, BENCH MARK

R

Designation C 10
Nearest town Philadelphia
Distance and direction from nearest town At Philadelphia
Character of mark A disk
Established by CGOS
Present condition Good
Detailed report At Fort Mifflin, on the U. S. Engineer Reservation, at the west end of the barge slip just east of Storehouse No. 1 and in the top of the retaining wall.
Recovered as Described - 1965

State Pennsylvania
County Philadelphia
County Philadelphia
Chief of Party R.W. Towlinson
Recovery Date Feb. 1961
Stamping "10,112 C 10 1931"

ELEVATION - Corps of Engineers, Delaware River Datum
12,980 Ft.

CE MLW = 12.48 Feet

SLD 10.079 C46 Lnt 1967
2.901
12.980

DUAD 390 751

THIS PAGE INTENTIONALLY LEFT BLANK

SPECIFICATIONS
FORT MIFFLIN
SEA WALL STABILIZATION AND PROTECTION PROJECT
PHILADELPHIA COUNTY, PENNSYLVANIA

PROJECT TABLE OF CONTENTS

<u>SECTION NO.</u>	<u>TITLE</u>
DIVISION 01 - GENERAL REQUIREMENTS	
01010	SUMMARY OF WORK
01060	SAFETY
01312	QUALITY CONTROL SYSTEM (QCS)
01320	CONSTRUCTION PHOTOGRAPHY
01325	PROJECT SCHEDULE
01330	SUBMITTAL PROCEDURES
01350	DIVING SERVICES
01355	ENVIRONMENTAL PROTECTION
01420	SOURCES FOR REFERENCE PUBLICATIONS
01450	CONTRACTOR QUALITY CONTROL
01500	TEMPORARY CONSTRUCTION
01720	SURVEY REQUIREMENTS
01780	AS-BUILT DRAWINGS
DIVISION 02 - SITE WORK	
02215	GEOTEXTILE
02271	RIPRAP
02315	EXCAVATION AND BACKFILLING
02370	EROSION CONTROL MAT
02820	ORNAMENTAL FENCE
02920	TOPSOIL AND SEEDING
DIVISION 04 - MASONRY	
04920	STONE MASONRY WALL REHABILITATION

(ONLY DIVISIONS 1, 2, AND 4 ARE USED IN THESE SPECIFICATIONS)

PROJECT TABLE OF CONTENTS

This page was intentionally left blank for duplex printing.

SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.1 SCOPE OF SECTION

This section presents a general description of the work to be accomplished under this contract.

1.2 DESCRIPTION OF WORK

The major items of work to be performed under this contract include, but are not limited to, the following:

- a. Clearing and grubbing including, but not limited to, removing growth through the wall and the careful removal of shrubs located at the top of the wall;
- b. Diversion and dewatering;
- c. Removal of existing riprap toe protection, excavation, and placement of geotextile and new riprap;
- d. Reconstruction of a portion of a stone masonry wall;
- e. Repairing stone masonry wall by grouting and and resetting wallstones in various locations;
- f. Regrouting stone masonry wall;
- g. Excavation and backfilling of sinkholes;
- h. Placing topsoil and erosion control mat;
- i. Seeding and mulching; and,
- j. Installation of ornamental fence and gate.

1.3 RESTRICTIONS ON WORK

1.3.1 Diversion and Dewatering Requirements

The Delaware River, in the project area, is tidal. Also, the project area is subject to waves and lapping water created by the passing of very large vessels in the navigable channel of the Delaware River. Removal of existing riprap, placement of geotextile, and placement of new riprap, all work items located in front of the wall, are work items subject to the diversion and dewatering requirements specified in Section 02315 EXCAVATION AND BACKFILLING.

1.3.2 Work From the Water

Removal of existing riprap for disposal offsite, delivery and staging of riprap, wallstone, capstone, and the staging of large excavation and placement equipment shall be from the water only. Due to concerns for the stability of the wall, materials shall not be staged in any area along the

top of the wall.

1.3.3 Riprap Replacement Work

To ensure stability of the wall, the removal of the wall's riprap toe protection shall be limited to 20 linear foot work sections, measured along the wall. The Contractor shall remove the existing riprap, place geotextile and new riprap, and obtain the COR's acceptance of the 20 linear foot work section, prior to moving on to the next 20 linear foot work section. Multiple 20-linear-foot work sections may be open at one time, however, provided there is a minimum of 40 linear feet between such open work areas.

The above stipulated 20 linear foot work sections is based on the assumption that the existing riprap does not extend below the wall's foundation. The exact depth of the wall's foundation is unknown. Consequently, if, during removal of the existing riprap toe protection, the Contractor determines that the existing riprap toe protection extends below the wall's foundation, the Contractor shall be restricted to 10 linear foot work sections.

In addition, the Contractor shall complete riprap removal, geotextile placement, and new riprap placement to the required elevation within the same workday. The Contractor shall not begin riprap removal work if the riprap removal, excavation, geotextile placement, and new riprap placement for that work section cannot be completed in the same workday.

For proposal purposes, the Contractor shall assume that removal of the existing riprap toe protection is above the wall's foundation and that 20 linear foot work sections shall be permitted.

1.3.4 Land-Based Equipment

To avoid placing surcharges on the historic wall and the earth-covered bunkers on the land side of the wall, land-based equipment, on the backside of the wall, shall be limited in size and weight to the equivalent of a Model 400 Bobcat. The Model 400 Bobcat has an approximate weight of 1800 pounds, a load capacity of 600 pounds, and an approximate width of 3 feet. The proposed equipment to be utilized for the land-based work shall be subject to the approval of the COR.

1.3.5 Land Access

At various points along the land access route, both along the route to the staging area and along the route to the active work/project area, the maximum width of the route is 8 feet. In addition, vegetation and structures are immediately adjacent the edges of the access route. The Contractor shall investigate this access route to determine the vertical and lateral restrictions along the access route. The Contractor shall protect all existing vegetation and structures along the access route from damage.

1.3.6 Environmental Window

The Contractor shall not perform any in-water work from March 15 to May 31. The in-water work includes any work that results in increased turbidity in the river, e.g. installation or dismantling of diversion and dewatering methods, removal of the existing riprap, and placement of geotextile and new riprap on river bottom.

1.3.7 Footings of Old Pier

The footings of an old pier exist in the approximate location indicated on the contract drawings. The Contractor shall locate and mark the perimeter of this area so that all water-based operations avoid damaging these footings.

1.4 PROTECTION OF PUBLIC AND LIMIT OF DISTURBANCE

Olde Fort Mifflin is a historic site open to the public. The Contractor and his subcontractors shall be constantly aware of the presence of the public. The Contractor shall utilize safety fencing and signs as necessary to cordon off the staging area and the active work area to protect the public from the contract work operations.

Olde Fort Mifflin is also an archaeologically sensitive area. Consequently, the Contractor and his subcontractors shall be constantly aware of the need to protect the structures and landscape and shall minimize disturbance to any area at the project location. Excessive ground pressures created by large equipment or vehicles is prohibited. Any items disturbed by the Contractor's work shall be restored to their original conditions to the approval of the Contracting Officer and at the Contractor's expense.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 01060

SAFETY

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work specified in this section includes the development and enforcement of a safety and accident prevention program.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (Latest Rev.) U.S. Army Corps of Engineers
Safety and Health Requirements Manual

NOTE: EM 385-1-1 and its changes are available at
<http://www.hq.usace.army.mil/soh/EM385/385TOC.htm>. The Contractor shall be responsible for complying with the current edition and all changes posted on the web as of the effective date of this solicitation.

U.S. ARMY CORPS OF ENGINEERS (PHILADELPHIA DISTRICT)

Liberty from Accidents Program (1996) Philadelphia District Awards
Program

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

NOTE: Any submittals classified as "SD-01 Preconstruction Submittals" are submittals required to be submitted to, and approved by, the office indicated prior to mobilization to the contract work site. All other submittals, classified as "SD-02" through "SD-11," shall be submitted to, and approved or reviewed by, the office indicated prior to commencing the particular task to which the submittal is associated.

SD-01 Preconstruction Submittals

Qualifications; G,DO.

Name and qualifications of the Contractor's proposed safety representative.

Accident Prevention Plan; G,DO.

An accident prevention plan, prepared by the prime Contractor for the specific work, implementing in detail the pertinent

requirements of EM 385-1-1 shall be submitted for approval prior to the start of work. A suggested format for the accident prevention plan is included in EM 385-1-1, Appendix A. The plan shall be prepared for all sites and shall include, but is not limited to, the topic areas listed in Appendix A therein and the requirements of the Paragraph entitled: SAFETY AND HEALTH PROVISIONS. Each topic shall be developed in a concise manner to include management and operational aspects.

SD-07 Certificates

Activity Phase Hazard Analysis Plan; G,DO.

Prior to beginning each major phase of work, an activity hazard analysis (phase plan) shall be prepared by the Contractor for that phase of work and submitted for approval. The suggested format for the analysis is contained in Figure 1-1 of EM 385-1-1. A phase is defined as an operation involving a type of work presenting hazards not experienced in previous operations or where a new subcontractor or work crew is to perform work. The analysis shall address the hazards for each activity performed in the phase and shall present the procedures and safeguards necessary to eliminate the hazards or reduce the risk to an acceptable level.

Safety Meeting Reports.

Outline reports of all weekly and monthly safety meeting shall be submitted.

Accident Reports.

A written report for all accidents utilizing ENG FORM 3394 shall be submitted within 24 hours following such accidents.

OSHA 300 Log.

Contractor's OSHA 300 Log of Injuries shall be submitted monthly.

1.4 GENERAL

Worker safety is of paramount importance. The Contractor shall comply with the Contract Clause entitled: ACCIDENT PREVENTION, EM 385-1-1, the Philadelphia District's Liberty from Accidents Program, and all other requirements as specified herein.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 SAFETY PROGRAM

EM 385-1-1 and all subsequent revisions referred to in the Contract Clause entitled: ACCIDENT PREVENTION of this contract, are hereby supplemented as follows:

a. The Contractor shall designate an employee to be the safety representative who shall be responsible for safety matters and accident prevention activities. Such duties shall include: (1) assuring applicable

safety requirements are incorporated in work methods and (2) inspecting the work to ensure that daily safety measures and instructions are implemented and documented. The proposed safety representative's name and qualifications shall be submitted in writing for approval by the Contracting Officer. This individual shall have prior experience as a safety representative or be able to demonstrate familiarity and understanding of the safety requirements over a prescribed trial period. The safety representative shall have the authority to act on behalf of the Contractor's general management to take whatever action is necessary to assure compliance with safety requirements. The safety representative is required to be on the site when work, of any kind, is being performed, unless otherwise approved by the COR.

b. Prior to commencement of any work at the job site, a preconstruction safety meeting will be held between the Contractor's safety representative and the Contracting Officer to discuss the Contractor's safety program and to review the Accident Prevention Plan and Activity Phase Hazard Analysis Plan for the first phase of work.

c. Subsequent jobsite safety meetings shall be held as follows:

(1) A safety meeting shall be held at least once a month, documented by the safety representative, with subject and attendees, for all supervisors on the project to review past activities, to plan ahead for new or changed operations and to establish safe working procedures to anticipated hazards. An outline report of each monthly meeting shall be submitted to the Contracting Officer.

(2) At least one safety meeting shall be conducted weekly, or whenever new crews begin work, by the appropriate field supervisors or foremen for all workers. An outline report of the meeting giving date, time, attendance, subjects discussed and who conducted the meeting shall be prepared and furnished to the Contracting Officer.

3.2 PHILADELPHIA DISTRICT LIBERTY FROM ACCIDENTS PROGRAM

The Philadelphia District Liberty from Accidents Program is hereby incorporated as part of these specifications. The Liberty from Accidents Program rewards Contractors who exceed safety standards. The program provides local and District-wide awards on a quarterly and annual basis.

a. The Contractor will be evaluated for awards and the final performance evaluation in safety on the frequency rate for the project. The frequency rate is calculated by the following equation: $\text{frequency} = (\text{number of lost time accidents} \times 200,000) \text{ divided by the number of man-hours for the project}$. The Contractor shall have a proactive safety plan as outlined in the Liberty from Accidents Program.

b. The Contractor evaluation procedure for the safety category shall be as follows:

RATING	CONTRACTOR FREQUENCY RATE
Outstanding	Less than or equal to 0.25.
Above Average	Greater than 0.25 but less than or equal to 0.75.
Satisfactory	Greater than 0.75 but less than or equal to 0.84.

Marginal Greater than 0.84 but less than or equal to 1.95.

Unsatisfactory Greater than 1.95.

Extenuating circumstances will be considered to change the safety rating in limited situations.

3.3 ACCIDENTS

Chargeable lost time accidents are to be investigated by both the Contractor and the Contracting Officer.

3.3.1 Accident Reporting

EM 385-1-1 and the Contract Clause entitled: ACCIDENT PREVENTION are supplemented as follows: The prime Contractor shall report on ENG FORM 3394, provided by the Contracting Officer's Representative, all injuries to employees or to subcontractor employee, and all damage to property and/or equipment. Verbal notification of such accidents shall be made to the Contracting Officer within 8 hours of occurrence. A written report utilizing ENG FORM 3394 shall be submitted to the Contracting Officer within 24 hours following such accidents. The report shall include the following:

a. A description of the circumstances leading up to the accident, the cause of the accident, and corrective measures taken to prevent recurrence.

b. A description of the injury and name and location of the medical facility rendering examination and treatment.

c. A statement as to whether or not the employee was permitted to return to work after examination and treatment by the medical facility, and if not, an estimate or statement of the number of days lost from work. If there have been days lost from work, the employee must be re-examined and declared fit to resume work as of the date of the report.

3.4 OSHA REQUIREMENTS

3.4.1 OSHA 300 Log

A copy of the Contractor's OSHA 300 Log of Injuries shall be submitted in accordance with the Paragraph entitled: SUBMITTALS.

3.4.2 OSHA Inspections

The Contractor shall immediately notify the Contracting Officer when an OSHA Compliance Official (Federal or State representative) presents credentials and informs the Contractor that the workplace will be inspected for OSHA compliance. The Contractor shall also notify the Contracting Officer upon determination that an exit interview will take place upon completion of the OSHA inspection.

3.5 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for the work specified in this section and all costs in connection therewith shall be included in the costs of all the price items.

-- End of Section --

SECTION 01312

QUALITY CONTROL SYSTEM (QCS)

PART 1 GENERAL

1.1 GENERAL

The Government will use the Resident Management System for Windows (RMS) to assist in its monitoring and administration of this contract. The Contractor shall use the Government-furnished Construction Contractor Module of RMS, referred to as QCS, to record, maintain, and submit various information throughout the contract period. This joint Government-Contractor use of RMS and QCS will facilitate electronic exchange of information and overall management of the contract. QCS provides the means for the Contractor to input, track, and electronically share information with the Government in the following areas:

- Administration
- Finances
- Quality Control
- Submittal Monitoring
- Scheduling
- Import/Export of Data

1.1.1 Correspondence and Electronic Communications

For ease and speed of communications, both Government and Contractor will, to the maximum extent feasible, exchange correspondence and other documents in electronic format. Correspondence, pay requests and other documents comprising the official contract record shall also be provided in paper format, with signatures and dates where necessary. Paper documents will govern, in the event of discrepancy with the electronic version.

1.1.2 Other Factors

Particular attention is directed to Contract Clause, "Schedules for Construction Contracts", Contract Clause, "Payments", Section 01325, PROJECT SCHEDULE, Section 01330, SUBMITTAL PROCEDURES, and Section 01450, CONTRACTOR QUALITY CONTROL, which have a direct relationship to the reporting to be accomplished through QCS. Also, there is no separate payment for establishing and maintaining the QCS database; all costs associated therewith shall be included in the contract pricing for the work.

1.2 QCS SOFTWARE

QCS is a Windows-based program that can be run on a stand-alone personal computer or on a network. The Government will make available the QCS software to the Contractor after award of the construction contract. Prior to the Pre-Construction Conference, the Contractor shall be responsible to download, install and use the latest version of the QCS software from the Government's RMS Internet Website. Upon specific justification and request by the Contractor, the Government can provide QCS on 3-1/2 inch high-density diskettes or CD-ROM. Any program updates of QCS will be made available to the Contractor via the Government RMS Website as they become available.

1.3 SYSTEM REQUIREMENTS

The following listed hardware and software is the minimum system configuration that the Contractor shall have to run QCS:

Hardware

IBM-compatible PC with 500 MHz Pentium or higher processor
128+ MB RAM for workstation / 256+ MB RAM for server
1 GB hard drive disk space for sole use by the QCS system
3 1/2 inch high-density floppy drive
Compact disk (CD) Reader, 8x speed or higher
SVGA or higher resolution monitor (1024 x 768, 256 colors)
Mouse or other pointing device
Windows compatible printer (Laser printer must have 4+ MB of RAM)
Connection to the Internet, minimum 56 BPS

Software

MS Windows 98, ME, NT, or 2000
Word Processing software compatible with MS Word 97 or newer
Latest version of : Netscape Navigator, Microsoft Internet Explorer, or other browser that supports HTML 4.0 or higher
Electronic mail (E-mail), MAPI compatible
Virus protection software that is regularly upgraded with all issued manufacturer's updates

1.4 RELATED INFORMATION

1.4.1 QCS User Guide

After contract award, the Contractor shall download instructions for the installation and use of QCS from the Government RMS Internet Website; the Contractor can obtain the current address from the Government. In case of justifiable difficulties, the Government will provide the Contractor with a CD-ROM containing these instructions.

1.4.2 Contractor Quality Control(CQC) Training

The use of QCS will be discussed with the Contractor's QC System Manager during the mandatory CQC Training class.

1.5 CONTRACT DATABASE

Prior to the pre-construction conference, the Government shall provide the

Contractor with basic contract award data to use for QCS. The Government will provide data updates to the Contractor as needed, generally by files attached to E-mail. These updates will generally consist of submittal reviews, correspondence status, QA comments, and other administrative and QA data.

1.6 DATABASE MAINTENANCE

The Contractor shall establish, maintain, and update data for the contract in the QCS database throughout the duration of the contract. The Contractor shall establish and maintain the QCS database at the Contractor's site office. Data updates to the Government shall be submitted by E-mail with file attachments, e.g., daily reports, schedule updates, payment requests. If permitted by the Contracting Officer, a data diskette or CD-ROM may be used instead of E-mail (see Paragraph DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM). The QCS database typically shall include current data on the following items:

1.6.1 Administration

1.6.1.1 Contractor Information

The database shall contain the Contractor's name, address, telephone numbers, management staff, and other required items. Within 14 calendar days of receipt of QCS software from the Government, the Contractor shall deliver Contractor administrative data in electronic format via E-mail.

1.6.1.2 Subcontractor Information

The database shall contain the name, trade, address, phone numbers, and other required information for all subcontractors. A subcontractor must be listed separately for each trade to be performed. Each subcontractor/trade shall be assigned a unique Responsibility Code, provided in QCS. Within 14 calendar days of receipt of QCS software from the Government, the Contractor shall deliver subcontractor administrative data in electronic format via E-mail.

1.6.1.3 Correspondence

All Contractor correspondence to the Government shall be identified with a serial number. Correspondence initiated by the Contractor's site office shall be prefixed with "S". Letters initiated by the Contractor's home (main) office shall be prefixed with "H". Letters shall be numbered starting from 0001. (e.g., H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with "C".

1.6.1.4 Equipment

The Contractor's QCS database shall contain a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates.

1.6.1.5 Management Reporting

QCS includes a number of reports that Contractor management can use to track the status of the project. The value of these reports is reflective of the quality of the data input, and is maintained in the various sections of QCS. Among these reports are: Progress Payment Request worksheet, QA/QC comments, Submittal Register Status, Three-Phase Inspection checklists.

1.6.2 Finances

1.6.2.1 Pay Activity Data

The QCS database shall include a list of pay activities that the Contractor shall develop in conjunction with the construction schedule. The sum of all pay activities shall be equal to the total contract amount, including modifications. Pay activities shall be grouped by Contract Line Item Number (CLIN), and the sum of the activities shall equal the amount of each CLIN. The total of all CLINs equals the Contract Amount.

1.6.2.2 Payment Requests

All progress payment requests shall be prepared using QCS. The Contractor shall complete the payment request worksheet and include it with the payment request. The work completed under the contract, measured as percent or as specific quantities, shall be updated at least monthly. After the update, the Contractor shall generate a payment request report using QCS. The Contractor shall submit the payment requests with supporting data by E-mail with file attachment(s). If permitted by the Contracting Officer, a data diskette may be used instead of E-mail. A signed paper copy of the approved payment request is also required, which shall govern in the event of discrepancy with the electronic version.

1.6.3 Quality Control (QC)

QCS provides a means to track implementation of the 3-phase QC Control System, prepare daily reports, identify and track deficiencies, document progress of work, and support other contractor QC requirements. The Contractor shall maintain this data on a daily basis. Entered data will automatically output to the QCS generated daily report. The Contractor shall provide the Government a Contractor Quality Control (CQC) Plan within the time required in Section 01450, CONTRACTOR QUALITY CONTROL. Within seven calendar days of Government acceptance, the Contractor shall submit a data diskette or CD-ROM reflecting the information contained in the accepted CQC Plan: schedule, pay activities, features of work, submittal register, QC requirements, and equipment list.

1.6.3.1 Daily Contractor Quality Control (CQC) Reports.

QCS includes the means to produce the Daily CQC Report. The Contractor may use other formats to record basic QC data. However, the Daily CQC Report generated by QCS shall be the Contractor's official report. Data from any supplemental reports by the Contractor shall be summarized and consolidated onto the QCS-generated Daily CQC Report. Daily CQC Reports shall be submitted as required by Section 01450, CONTRACTOR QUALITY CONTROL. Reports shall be submitted electronically to the Government using E-mail or diskette within 24 hours after the date covered by the report. Use of either mode of submittal shall be coordinated with the Government representative. The Contractor shall also provide the Government a signed, printed copy of the daily CQC report.

1.6.3.2 Deficiency Tracking.

The Contractor shall use QCS to track deficiencies. Deficiencies identified by the Contractor will be numerically tracked using QC punch list items. The Contractor shall maintain a current log of its QC punch list items in the QCS database. The Government will log the deficiencies

it has identified using its QA punch list items. The Government's QA punch list items will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of both QC and QA punch list items.

1.6.3.3 Three-Phase Control Meetings

The Contractor shall maintain scheduled and actual dates and times of preparatory and initial control meetings in QCS.

1.6.3.4 Accident/Safety Tracking.

The Government will issue safety comments, directions, or guidance whenever safety deficiencies are observed. The Government's safety comments will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of the safety comments. In addition, the Contractor shall utilize QCS to advise the Government of any accidents occurring on the jobsite. This brief supplemental entry is not to be considered as a substitute for completion of mandatory reports, e.g., ENG Form 3394 and OSHA Form 200.

1.6.3.5 Features of Work

The Contractor shall include a complete list of the features of work in the QCS database. A feature of work may be associated with multiple pay activities. However, each pay activity (see subparagraph "Pay Activity Data" of paragraph "Finances") will only be linked to a single feature of work.

1.6.3.6 QC Requirements

The Contractor shall develop and maintain a complete list of QC testing, transferred and installed property, and user training requirements in QCS. The Contractor shall update all data on these QC requirements as work progresses, and shall promptly provide this information to the Government via QCS.

1.6.4 Submittal Management

The Government will provide the initial submittal register, ENG Form 4288, SUBMITTAL REGISTER, in electronic format. Thereafter, the Contractor shall maintain a complete list of all submittals, including completion of all data columns. Dates on which submittals are received and returned by the Government will be included in its export file to the Contractor. The Contractor shall use QCS to track and transmit all submittals. ENG Form 4025, submittal transmittal form, and the submittal register update, ENG Form 4288, shall be produced using QCS. RMS will be used to update, store and exchange submittal registers and transmittals, but will not be used for storage of actual submittals.

1.6.5 Schedule

The Contractor shall develop a construction schedule consisting of pay activities, in accordance with Contract Clause "Schedules for Construction Contracts", or Section 01325, PROJECT SCHEDULE, as applicable. This schedule shall be input and maintained in the QCS database either manually or by using the Standard Data Exchange Format (SDEF) (see Section 01325 PROJECT SCHEDULE). The updated schedule data shall be included with each pay request submitted by the Contractor.

1.6.6 Import/Export of Data

QCS includes the ability to export Contractor data to the Government and to import submittal register and other Government-provided data, and schedule data using SDEF.

1.7 IMPLEMENTATION

Contractor use of QCS as described in the preceding paragraphs is mandatory. The Contractor shall ensure that sufficient resources are available to maintain its QCS database, and to provide the Government with regular database updates. QCS shall be an integral part of the Contractor's management of quality control.

1.8 DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM

The Government-preferred method for Contractor's submission of updates, payment requests, correspondence and other data is by E-mail with file attachment(s). For locations where this is not feasible, the Contracting Officer may permit use of computer diskettes or CD-ROM for data transfer. Data on the disks or CDs shall be exported using the QCS built-in export function. If used, diskettes and CD-ROMs will be submitted in accordance with the following:

1.8.1 File Medium

The Contractor shall submit required data on 3-1/2 inch double-sided high-density diskettes formatted to hold 1.44 MB of data, capable of running under Microsoft Windows 98 or newer. Alternatively, CD-ROMs may be used. They shall conform to industry standards used in the United States. All data shall be provided in English.

1.8.2 Disk or CD-ROM Labels

The Contractor shall affix a permanent exterior label to each diskette and CD-ROM submitted. The label shall indicate in English, the QCS file name, full contract number, contract name, project location, data date, name and telephone number of person responsible for the data.

1.8.3 File Names

The Government will provide the file names to be used by the Contractor with the QCS software.

1.9 MONTHLY COORDINATION MEETING

The Contractor shall update the QCS database each workday. At least monthly, the Contractor shall generate and submit an export file to the Government with schedule update and progress payment request. As required in Contract Clause "Payments", at least one week prior to submittal, the Contractor shall meet with the Government representative to review the planned progress payment data submission for errors and omissions. The Contractor shall make all required corrections prior to Government acceptance of the export file and progress payment request. Payment requests accompanied by incomplete or incorrect data submittals will be returned. The Government will not process progress payments until an acceptable QCS export file is received.

1.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the requirements of this specification. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification.

PART 2 PRODUCTS

PART 3 EXECUTION

3.1 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for the work specified in this section and all costs in connection therewith shall be included in the costs of all the price items.

-- End of Section --

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 01320

CONSTRUCTION PHOTOGRAPHY

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work specified in this section includes construction photographs consisting of prints and digital image files showing the pre-construction condition, post-construction condition, progress of work during the contract period, work methods, and equipment utilized.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-07 Certificates

Photography Plan; G COR.

The Contractor shall submit for approval each month his photography plan, which shall include the following information: items to be photographed, locations, and the time the images are to be taken.

Pre-Construction Photographs; G COR.

Pre-Construction photographs and digital images shall be furnished to the Government within 10 calendar days of when they are taken. They shall be taken as close as possible to the beginning of the construction work. The Contractor shall provide 3-inch, 3-ring binders and plastic photo-holder pages which shall hold the size of photos submitted. The Contractor shall submit the digital images on a disc or CD.

Construction Photographs; G COR.

Construction photographs and digital images shall be furnished to the Government within 10 days of when they are taken throughout the contract period. The photos shall be submitted in plastic photo-holder pages as described above. The digital images shall be submitted on a disc or CD.

Post-Construction Photographs; G COR.

Post-Construction photographs and digital images shall be furnished to the Government within 10 calendar days of when they are taken. They shall be taken immediately after the end of the construction work. The photos shall be submitted in plastic photo-holder pages as described above. The digital images shall be submitted on a disc or CD.

One set of photographs, and digital images, and identification

information of the above required photographs, shall be sent to the Philadelphia District Office at the following address:

U.S. Army Corps of Engineers
Philadelphia District
Design Branch (CENAP-EC-DC)
Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390

1.3 QUALITY ASSURANCE

All photography shall be performed by a qualified, established commercial photographer.

1.4 GENERAL REQUIREMENTS

1.4.1 Prints

Prints shall be 8" x 10", color, on single weight paper with smooth surface, glossy finish. Identification information on back of each print shall include: name and location of project, item/action being photographed, General Contractor, orientation of view, date and time of exposure, and name and address of photographer.

1.4.2 Digital Images

Digital images shall be taken with a high quality digital camera using a minimum of 3,000,000 pixels. Images shall be identified by number and referenced to a printed listing containing the same identification information as used for the prints. The digital images may be furnished on 3-1/2 inch discs or compact disc (CD).

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 PHOTOGRAPHY

A minimum of 15 photographs shall be taken during each phase of the contract period (Pre-Construction, Construction, Post-Construction). The Contractor shall submit color prints and accompanying digital images showing the work methods, equipment utilized, and the progress of work at the following times during the contract period:

- a. Prior to commencement of work the Contractor shall photograph the existing conditions of the work site.
- b. During the progress of the work, such as at the start and completion of the definable features of work. NOTE: All photography for documenting the "progress of work" shall be of actual, working personnel and equipment, depicting the work methods being utilized, taken during normal working hours.
- c. After completion of the work the Contractor shall photograph the site from the same locations used to determine the existing conditions prior to construction.
- d. Special events throughout the contract period as directed by the

Contracting Officer's Representative.

3.2 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for the work specified in this section and all costs in connection therewith shall be included in the costs of all the price items.

-- End of Section --

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 01325

PROJECT SCHEDULE

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work specified in this section includes the development and maintenance of a project schedule to be used to measure the progress of the work, to aid in evaluating time extensions, and to provide the basis of all progress payments.

1.2 REFERENCES

The publications listed below form a part of the specification to the extent referenced. The publications are referenced in the text by basic designation only.

ENGINEERING REGULATIONS (ER)

ER 1-1-11 (1995) Progress, Schedules, and Network
Analysis Systems

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-07 Certificates

Project Schedule; G,COR.

The project schedule, including all requirements as specified herein, shall be submitted within 15 calendar days after receipt by the Contractor of the notice to proceed.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

Pursuant to the Contract Clause, SCHEDULE FOR CONSTRUCTION CONTRACTS, a Project Schedule as described below shall be prepared. The scheduling of construction shall be the responsibility of the Contractor. Contractor management personnel shall actively participate in its development. Subcontractors and suppliers working on the project shall also contribute in developing and maintaining an accurate Project Schedule. The approved Project Schedule shall be used to measure the progress of the work, to aid in evaluating time extensions, and to provide the basis of all progress payments.

3.2 BASIS FOR PAYMENT

The schedule shall be the basis for measuring Contractor progress. Lack of an approved schedule or scheduling personnel will result in an inability of the Contracting Officer to evaluate Contractor's progress for the purposes of payment. Failure of the Contractor to provide all information, as specified below, shall result in the disapproval of the entire Project Schedule submission and the inability of the Contracting Officer to evaluate Contractor progress for payment purposes. In the case where Project Schedule revisions have been directed by the Contracting Officer and those revisions have not been included in the Project Schedule, the Contracting Officer may hold retainage up to the maximum allowed by contract, each payment period, until revisions to the Project Schedule have been made.

3.3 PROJECT SCHEDULE

The computer software system utilized by the Contractor to produce the Project Schedule shall be capable of providing all requirements of this specification. Failure of the Contractor to meet the requirements of this specification shall result in the disapproval of the schedule. Manual methods used to produce any required information shall require approval by the Contracting Officer.

3.3.1 Use of the Critical Path Method

The Critical Path Method (CPM) of network calculation shall be used to generate the Project Schedule. The Contractor shall provide the Project Schedule in the Precedence Diagram Method (PDM).

3.3.2 Level of Detail Required

The Project Schedule shall include an appropriate level of detail. Failure to develop or update the Project Schedule or provide data to the Contracting Officer at the appropriate level of detail, as specified by the Contracting Officer, shall result in the disapproval of the schedule. The Contracting Officer will use, but is not limited to, the following conditions to determine the appropriate level of detail to be used in the Project Schedule:

3.3.2.1 Activity Durations

Contractor submissions shall follow the direction of the Contracting Officer regarding reasonable activity durations. Reasonable durations are those that allow the progress of activities to be accurately determined between payment periods (usually less than 2 percent of all non-procurement activities' Original Durations are greater than 20 days).

3.3.2.2 Procurement Activities

Tasks related to the procurement of long lead materials or equipment shall be included as separate activities in the project schedule. Long lead materials and equipment are those materials that have a procurement cycle of over 90 days. Examples of procurement process activities include, but are not limited to: submittals, approvals, procurement, fabrication, and delivery.

3.3.2.3 Critical Activities

The following is an example list of activities that shall be listed as separate line activities on the Contractor's project schedule. This includes, but is not limited to:

- a. The environmental window.
- b. Installation of diversion and dewatering methods.
- c. Removal of existing riprap and underlying soil (in 20 linear foot sections).
- d. Placement of geotextile and new riprap (in 20 linear foot section).
- e. Stone masonry demonstration section.
- f. Stone masonry repair work.
- g. Stone masonry reconstruction work.
- h. Excavation, placement of geotextile, and backfilling of sinkholes.
- i. Installation of ornamental fence.
- j. Submission and approval of as-built drawings.
- k. Prefinal inspection.
- l. Correction of punchlist from prefinal inspection.
- m. Final inspection.

3.3.2.4 Government Activities

Government and other agency activities that could impact progress shall be shown. These activities include, but are not limited to: approvals, inspections, utility tie-in, Government Furnished Equipment (GFE) and Notice to Proceed (NTP) for phasing requirements.

3.3.2.5 Responsibility

All activities shall be identified in the project schedule by the party responsible to perform the work. Responsibility includes, but is not limited to, the subcontracting firm, contractor work force, or government agency performing a given task. Activities shall not belong to more than one responsible party. The responsible party for each activity shall be identified by the Responsibility Code.

3.3.2.6 Work Areas

All activities shall be identified in the project schedule by the work area in which the activity occurs. Activities shall not be allowed to cover more than one work area. The work area of each activity shall be identified by the Work Area Code.

3.3.2.7 Modification or Claim Number

Any activity that is added or changed by contract modification or used to justify claimed time shall be identified by a mod or claim code that

changed the activity. Activities shall not belong to more than one modification or claim item. The modification or claim number of each activity shall be identified by the Mod or Claim Number. Whenever possible, changes shall be added to the schedule by adding new activities. Existing activities shall not normally be changed to reflect modifications.

3.3.2.8 Price Item

All activities shall be identified in the project schedule by the Price Item to which the activity belongs. An activity shall not contain work in more than one price item. The price item for each appropriate activity shall be identified by the Price Item Code.

3.3.2.9 Phase of Work

All activities shall be identified in the project schedule by the phases of work in which the activity occurs. Activities shall not contain work in more than one phase of work. The project phase of each activity shall be by the unique Phase of Work Code.

3.3.2.10 Category of Work

All Activities shall be identified in the project schedule according to the category of work which best describes the activity. Category of work refers, but is not limited, to the procurement chain of activities including such items as submittals, approvals, procurement, fabrication, delivery, installation, start-up, and testing. The category of work for each activity shall be identified by the Category of Work Code.

3.3.2.11 Feature of Work

All activities shall be identified in the project schedule according to the feature of work to which the activity belongs. Feature of work refers, but is not limited to, a work breakdown structure for the project. The feature of work for each activity shall be identified by the Feature of Work Code.

3.3.3 Scheduled Project Completion

The schedule interval shall extend from NTP to the contract completion date.

3.3.3.1 Project Start Date

The schedule shall start no earlier than the date on which the NTP was acknowledged. The Contractor shall include as the first activity in the project schedule an activity called "Start Project". The "Start Project" activity shall have an "ES" constraint date equal to the date that the NTP was acknowledged, and a zero day duration.

3.3.3.2 Constraint of Last Activity

Completion of the last activity in the schedule shall be constrained by the contract completion date. Calculation on project updates shall be such that if the early finish of the last activity falls after the contract completion date, then the float calculation shall reflect a negative float on the critical path. The Contractor shall include as the last activity in the project schedule an activity called "End Project". The "End Project" activity shall have an "LF" constraint date equal to the completion date for the project, and a zero day duration.

3.3.3.3 Early Project Completion

In the event the project schedule shows completion of the project prior to the contract completion date, the Contractor shall identify those activities that have been accelerated and/or those activities that are scheduled in parallel to support the Contractor's "early" completion. Contractor shall specifically address each of the activities noted in the narrative report at every project schedule update period to assist the Contracting Officer in evaluating the Contractor's ability to actually complete prior to the contract period.

3.3.4 Interim Completion Dates

Contractually specified interim completion dates shall also be constrained to show negative float if the early finish date of the last activity in that phase falls after the interim completion date.

3.3.4.1 Start Phase

The Contractor shall include as the first activity for a project phase an activity called "Start Phase X" where "X" refers to the phase of work. The "Start Phase X" activity shall have an "ES" constraint date equal to the date on which the NTP was acknowledged, and a zero day duration.

3.3.4.2 End Phase

The Contractor shall include as the last activity in a project phase an activity called "End Phase X" where "X" refers to the phase of work. The "End Phase X" activity shall have an "LF" constraint date equal to the completion date for the project, and a zero day duration.

3.3.4.3 Phase X

The Contractor shall include a hammock type activity for each project phase called "Phase X" where "X" refers to the phase of work. The "Phase X" activity shall be logically tied to the earliest and latest activities in the phase.

3.3.5 Default Progress Data Disallowed

Actual Start and Finish dates shall not be automatically updated by default mechanisms that may be included in CPM scheduling software systems. Actual Start and Finish dates on the CPM schedule shall match those dates provided from Contractor Quality Control Reports. Failure of the Contractor to document the Actual Start and Finish dates on the Daily Quality Control report for every in-progress or completed activity, and failure to ensure that the data contained on the Daily Quality Control reports is the sole basis for schedule updating shall result in the disapproval of the Contractor's schedule and the inability of the Contracting Officer to evaluate Contractor progress for payment purposes. Updating of the percent complete and the remaining duration of any activity shall be independent functions. Program features which calculate one of these parameters from the other shall be disabled.

3.3.6 Out-of-Sequence Progress

Activities that have posted progress without all preceding logic being satisfied (Out-of-Sequence Progress) will be allowed only on a case-by-case approval of the Contracting Officer. The Contractor shall propose logic

corrections to eliminate all out of sequence progress or justify not changing the sequencing for approval prior to submitting an updated project schedule.

3.3.7 Negative Lags

Lag durations contained in the project schedule shall not have a negative value.

3.4 PROJECT SCHEDULE SUBMISSIONS

The Contractor shall provide the submissions as described below. The data disk, reports, and network diagrams required for each submission are contained in paragraph SUBMISSION REQUIREMENTS.

3.4.1 Initial Project Schedule Submission

The Initial Project Schedule shall be submitted for approval within 15 calendar days after NTP. The schedule shall provide a reasonable sequence of activities which represent work through the entire project and shall be at a reasonable level of detail.

3.4.2 Periodic Schedule Updates

Based on the result of progress meetings, specified in "Periodic Progress Meetings," the Contractor shall submit periodic schedule updates. These submissions shall enable the Contracting Officer to assess Contractor's progress. If the Contractor fails or refuses to furnish the information and project schedule data, which in the judgement of the Contracting Officer or authorized representative is necessary for verifying the Contractor's progress, the Contractor shall be deemed not to have provided an estimate upon which progress payment may be made.

3.4.3 Standard Activity Coding Dictionary

The Contractor shall use the activity coding structure defined in the Standard Data Exchange Format (SDEF) in ER 1-1-11, Appendix A. This exact structure is mandatory, even if some fields are not used.

3.5 SUBMISSION REQUIREMENTS

The following items shall be submitted by the Contractor for the initial submission, and every periodic project schedule update throughout the life of the project:

3.5.1 Data Disks

Two data disks containing the project schedule shall be provided. Data on the disks shall adhere to the SDEF format specified in ER 1-1-11, Appendix A.

3.5.1.1 File Medium

Required data shall be submitted on 3.5 disks, formatted to hold 1.44 MB of data, under the MS-DOS Version 5. or 6.x, unless otherwise approved by the Contracting Officer.

3.5.1.2 Disk Label

A permanent exterior label shall be affixed to each disk submitted. The label shall indicate the type of schedule (Initial, Update, or Change), full contract number, project name, project location, data date, name and telephone number or person responsible for the schedule, and the MS-DOS version used to format the disk.

3.5.1.3 File Name

Each file submitted shall have a name related to either the schedule data date, project name, or contract number. The Contractor shall develop a naming convention that will ensure that the names of the files submitted are unique. The Contractor shall submit the file naming convention to the Contracting Officer for approval.

3.5.2 Narrative Report

A Narrative Report shall be provided with the initial, and each update of the project schedule. This report shall be provided as the basis of the Contractor's progress payment request. The Narrative Report shall include:
a description of activities along the 2 most critical paths, a description of current and anticipated problem areas or delaying factors and their impact, and an explanation of corrective actions taken or required to be taken. The narrative report is expected to relay to the Government, the Contractor's thorough analysis of the schedule output and its plans to compensate for any problems, either current or potential, which are revealed through that analysis.

3.5.3 Approved Changes Verification

Only project schedule changes that have been previously approved by the Contracting Officer shall be included in the schedule submission. The Narrative Report shall specifically reference, on an activity by activity basis, all changes made since the previous period and relate each change to documented, approved schedule changes.

3.5.4 Schedule Reports

The format for each activity for the schedule reports listed below shall contain: Activity Numbers, Activity Description, Original Duration, Remaining Duration, Early Start Date, Early Finish Date, Late Start Date, Late Finish Date, Total Float. Actual Start and Actual Finish Dates shall be printed for those activities in progress or completed.

3.5.4.1 Activity Report

A list of all activities sorted according to activity number.

3.5.4.2 Logic Report

A list of Preceding and Succeeding activities for every activity in ascending order by activity number. Preceding and succeeding activities shall include all information listed above in paragraph Schedule Reports. A blank line shall be left between each activity grouping.

3.5.4.3 Total Float Report

A list of all incomplete activities sorted in ascending order of total float. Activities which have the same amount of total float shall be listed in ascending order of Early Start Dates. Completed activities shall

not be shown on this report.

3.5.4.4 Earnings Report

A compilation of the Contractor's Total Earnings on the project from the NTP until the most recent Monthly Progress Meeting. This report shall reflect the Earnings of specific activities based on the agreements made in the field and approved between the Contractor and Contracting Officer at the most recent Monthly Progress Meeting. Provided that the Contractor has provided a complete schedule update, this report shall serve as the basis of determining Contractor Payment. Activities shall be grouped by price item and sorted by activity numbers. This report shall: sum all activities in a price item and provide a price item percent; and complete and sum all price items to provide a total project percent complete. The printed report shall contain, for each activity: the Activity Number, Activity Description, Original Budgeted Amount, Total Quantity, Quantity to Date, Percent Complete (based on cost), and Earnings to Date.

3.5.5 Network Diagram

The network diagram shall be required on the initial schedule submission and on monthly schedule update submissions. The network diagram shall depict and display the order and interdependence of activities and the sequence in which the work is to be accomplished. The Contracting Officer will use, but is not limited to, the following conditions to review compliance with this paragraph:

3.5.5.1 Continuous Flow

Diagrams shall show a continuous flow from left to right with no arrows from right to left. The activity number, description, duration, and estimated earned value shall be shown on the diagram.

3.5.5.2 Project Milestone Dates

Dates shall be shown on the diagram for start of project, any contract required interim completion dates, and contract completion dates.

3.5.5.3 Critical Path

The critical path shall be clearly shown.

3.5.5.4 Banding

Activities shall be grouped to assist in the understanding of the activity sequence. Typically, this flow will group activities by category of work, work area and/or responsibility.

3.5.5.5 S-Curves

Earnings curves showing projected early and late earnings and earnings to date.

3.6 PERIODIC PROGRESS MEETINGS

Progress meetings to discuss payment shall include a monthly onsite meeting or other regular intervals mutually agreed to at the preconstruction conference. During this meeting the Contractor shall describe, on an activity by activity basis, all proposed revisions and adjustments to the

project schedule required to reflect the current status of the project. The Contractor shall be responsible for recording and distributing minutes of these meetings. The Contracting Officer will approve activity progress, proposed revisions, and adjustments as appropriate.

3.6.1 Meeting Attendance

The Contractor's Project Manager and Scheduler shall attend the regular progress meeting.

3.6.2 Update Submission Following Progress Meeting

A complete update of the project schedule containing all approved progress, revisions, and adjustments, based on the regular progress meeting, shall be submitted not later than 4 working days after the monthly progress meeting.

3.6.3 Progress Meeting Contents

Update information, including Actual Start Dates, Actual Finish Dates, Remaining Durations, and Cost-to-Date shall be subject to the approval of the Contracting Officer. As a minimum, the Contractor shall address the following items on an activity by activity basis during each progress meeting.

3.6.3.1 Start and Finish Dates

The Actual Start and Actual Finish dates for each activity currently in-progress or completed .

3.6.3.2 Time Completion

The estimated Remaining Duration for each activity in-progress. Time-based progress calculations shall be based on Remaining Duration for each activity.

3.6.3.3 Cost Completion

The earnings for each activity started. Payment will be based on earnings for each in-progress or completed activity. Payment for individual activities will not be made for work that contains quality defects. A portion of the overall project amount may be retained based on delays of activities.

3.6.3.4 Logic Changes

All logic changes pertaining to NTP on change orders, change orders to be incorporated into the schedule, contractor proposed changes in work sequence, corrections to schedule logic for out-of-sequence progress, lag durations, and other changes that have been made pursuant to contract provisions shall be specifically identified and discussed.

3.6.3.5 Other Changes

Other changes required due to delays in completion of any activity or group of activities include: 1) delays beyond the Contractor's control, such as strikes and unusual weather. 2) delays encountered due to submittals, Government Activities, deliveries or work stoppages which make re-planning the work necessary. 3) Changes required to correct a schedule which does not represent the actual or planned prosecution and progress of the work.

3.7 REQUESTS FOR TIME EXTENSIONS

In the event the Contractor requests an extension of the contract completion date, or any interim milestone date, the Contractor shall furnish the following for a determination as to whether or not the Contractor is entitled to an extension of time under the provisions of the contract: justification, project schedule data, and supporting evidence as the Contracting Officer may deem necessary. Submission of proof of delay, based on revised activity logic, duration, and costs (updated to the specific date that the delay occurred) is obligatory to any approvals.

3.7.1 Justification of Delay

The project schedule shall clearly display that the Contractor has used, in full, all the float time available for the work involved with this request.

The Contracting Officer's determination as to the number of allowable days of contract extension shall be based upon the project schedule updates in effect for the time period in question, and other factual information. Actual delays that are found to be caused by the Contractor's own actions, which result in the extension of the schedule, will not be a cause for a time extension to the contract completion date.

3.7.2 Submission Requirements

The Contractor shall submit a justification for each request for a change in the contract completion date of under 2 weeks based upon the most recent schedule update at the time of the NTP or constructive direction issued for the change. Such a request shall be in accordance with the requirements of other appropriate Contract Clauses and shall include, as a minimum:

- a. A list of affected activities, with their associated project schedule activity number.
- b. A brief explanation of the causes of the change.
- c. An analysis of the overall impact of the changes proposed.
- d. A sub-network of the affected area.

Activities impacted in each justification for change shall be identified by a unique activity code contained in the required data file.

3.7.3 Additional Submission Requirements

For any requested time extension of over 2 weeks, the Contracting Officer may request an interim update with revised activities for a specific change request. The Contractor shall provide this disk within 4 days of the Contracting Officer's request.

3.8 DIRECTED CHANGES

If the NTP is issued for changes prior to settlement of price and/or time, the Contractor shall submit proposed schedule revisions to the Contracting Officer within 2 weeks of the NTP being issued. The proposed revisions to the schedule will be approved by the Contracting Officer prior to inclusion of those changes within the project schedule. If the Contractor fails to submit the proposed revisions, the Contracting Officer may furnish the Contractor with suggested revisions to the project schedule. The

Contractor shall include these revisions in the project schedule until revisions are submitted, and final changes and impacts have been negotiated. If the Contractor has any objections to the revisions furnished by the Contracting Officer, the Contractor shall advise the Contracting Officer within 2 weeks of receipt of the revisions. Regardless of the objections, the Contractor shall continue to update the schedule with the Contracting Officer's revisions until a mutual agreement in the revisions is reached. If the Contractor fails to submit alternative revisions within 2 weeks of receipt of the Contracting Officer's proposed revisions, the Contractor will be deemed to have concurred with the Contracting Officer's proposed revisions. The proposed revisions will then be the basis for an equitable adjustment for performance of the work.

3.9 OWNERSHIP OF FLOAT

Float available in the schedule, at any time, shall not be considered for the exclusive use of either the Government or the Contractor.

3.10 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for the work specified in this section and all costs in connection therewith shall be included in the costs of all the price items.

-- End of Section --

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 01330

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work specified in this section includes the requirement to complete and maintain a submittal register and describes the procedures to be followed for the submission of submittals.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-07 Certificates

Review and Complete Submittal Register (ENG Form 4288); G,COR.

Update Submittal Register (ENG Form 4288); G,COR.

1.3 SUBMITTAL IDENTIFICATION (SD)

Submittals required are identified by SD numbers and titles as follows:

SD-01 Preconstruction Submittals

SD-02 Shop Drawings

SD-03 Product Data

SD-04 Samples

SD-05 Design Data

SD-06 Test Reports

SD-07 Certificates

SD-08 Manufacturer's Instructions

SD-09 Manufacturer's Field Reports

SD-10 Operation and Maintenance Data

SD-11 Closeout Submittals

1.4 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.4.1 Government Approved

Government approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

1.4.2 Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.5 APPROVED SUBMITTALS

The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.6 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause "Changes" shall be given promptly to the Contracting Officer.

1.7 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

1.8 GENERAL

The Contractor shall make submittals as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) System Manager and each item shall be stamped, signed, and dated by the CQC System Manager indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby.

1.9 SUBMITTAL REGISTER

At the end of this section is a submittal register showing items of equipment and materials for which submittals are required by the specifications; this list may not be all inclusive and additional submittals may be required. The Contractor shall update and submit the submittal register to the COR at least monthly.

1.10 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 15 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval. No delay damages or time extensions will be allowed for time lost in late submittals.

1.11 TRANSMITTAL FORM (ENG FORM 4025)

The sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item. The Action Code definitions on reverse side of ENG FORM 4025 shall be augmented as follows:

Code B - Approved, except as noted on the submittal and/or attached sheet. Contractor shall complete all noted actions and address all comments prior to proceeding with those items of work associated with and impacted by the noted actions/comments.

Code C - Conditionally approved, except as noted on the submittal and/or attached sheet. Resubmission and approval are required prior to proceeding with those items of work associated with and impacted by the noted actions/comments. The entire submittal, corrected to comply with the noted actions/comments, must be resubmitted

1.12 SUBMITTAL PROCEDURE

Paragraph (g) of Contract Clause: "Specifications and Drawings for Construction," is modified as specified herein. While submittals referred to in the text may use the wording "submitted to the Contracting Officer", submittals will be reviewed as indicated in column "f" of the Submittal Register (ENG Form 4288). Submittals shall be made as follows:

1.12.1 Submittals for Contracting Officer Representative (COR) Review and For Information Only (FIO)

The Contractor shall submit seven copies of submittals, on the submittal register indicated for Contracting Officer Representative (COR) approval, or, for information only (FIO), to the Contracting Officer Representative.

1.12.2 Submittals for District Office (DO) Review

The Contractor shall submit to the District Office (DO), by the most expedient means, a total of seven copies of shop drawings and other submittals listed on the Submittal Register (ENG Form 4288) as requiring

technical review by the DO. Six copies shall be submitted to the DO and one copy shall be submitted to the Contracting Officer Representative. The Contractor shall be responsible for all costs incurred in transmitting the required information for review in the submittal process.

DO mailing address:
US Army Corps of Engineers
Philadelphia District
Attn: CENAP-EC-CQ (DelFerro)
Wanamaker Building
100 Penn Square East
Philadelphia, PA 19107-3390

1.12.3 Deviations

For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

1.12.4 Completion of Work

Upon completing the work under this contract, the Contractor shall furnish one set of prints of all shop drawings as finally approved. These drawings shall show all changes and revisions made up to the time the items covered by the shop drawings are completed and accepted."

1.13 CONTROL OF SUBMITTALS

The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

1.14 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. Three (3) copies of the submittal will be retained by the Contracting Officer and the remaining copies of the submittal will be returned to the Contractor.

1.15 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approval of the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the drawings and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

1.16 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

CONTRACTOR
(Firm Name)
_____ Approved
_____ Approved with corrections as noted on submittal data and/or attached sheets(s).
SIGNATURE: _____
TITLE: _____
DATE: _____

PART 2 PRODUCTS

PART 3 EXECUTION

3.1 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for the work specified in this section and all costs in connection therewith shall be included in the costs of all the price items.

-- End of Section --

THIS PAGE INTENTIONALLY LEFT BLANK

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE

(Read instructions on the reverse side prior to initiating this form)

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS

(This section will be initiated by the contractor)

TO:	FROM:	CONTRACT NO.	CHECK ONE: <input type="checkbox"/> THIS IS A NEW TRANSMITTAL <input type="checkbox"/> THIS IS A RESUBMITTAL OF TRANSMITTAL _____
SPECIFICATION SEC. NO. (Cover only one section with each transmittal)		PROJECT TITLE AND LOCATION	CHECK ONE: THIS TRANSMITTAL IS FOR <input type="checkbox"/> FIO <input type="checkbox"/> GOV'T. APPROVAL

[illegible]

REMARKS

I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as other wise stated.

NAME AND SIGNATURE OF CONTRACTOR

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED <i>(List by Item No.)</i>	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE
---	--	------

INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number of copies.
2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box; on resubmittals, insert transmittal number of last submission as well as the new submittal number.
3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288 for each entry on this form.
4. Submittals requiring expeditious handling will be submitted on a separate form.
5. Separate transmittal form will be used for submittals under separate sections of the specifications.
6. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications --also, a written statement to that effect shall be included in the space provided for "Remarks".
7. Form is self-transmittal, letter of transmittal is not required.
8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I.
9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I, column i to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g, to each item submitted.

THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

- | | |
|---|--|
| A -- Approved as submitted. | E -- Disapproved (See attached). |
| B -- Approved, except as noted on drawings. | F -- Receipt acknowledged. |
| C -- Approved, except as noted on drawings. | FX -- Receipt acknowledged, does not comply as noted with contract requirements. |
| Refer to attached sheet resubmission required. | G -- Other (<i>Specify</i>) |
| D -- Will be returned by separate correspondence. | |
10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION						CONTRACTOR												
Fort Mifflin Sea Wall Stabilization and Protection Project																		
ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	GOVT CLASSIFICATION OR REV W R	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS	
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION		DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION			
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	
		00700	SD-01 Preconstruction Submittals															
			Payroll Basic Records &		G COR													
			Statements of Compliance															
			Affirmative Action Compliance		G COR													
			Plan															
			Certificate of Insurance		G DO													
		01060	SD-01 Preconstruction Submittals															
			Qualifications		G DO													
			Accident Prevention Plan		G DO													
			SD-07 Certificates															
			Activity Phase Hazard Analysis		G DO													
			Plan															
			Safety Meeting Reports		FIO													
			Accident Reports		FIO													
			OSHA 300 Log		FIO													
		01320	SD-07 Certificates															
			Photography Plan		G COR													
			Pre-Construction Photographs		G COR													
			Construction Photographs		G COR													
			Post-Construction Photographs		G COR													
		01325	SD-07 Certificates															
			Project Schedule		G COR													
		01330	SD-07 Certificates															
			Review and Complete Submittal		G COR													
			Register (ENG Form 4288)															

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION Fort Mifflin Sea Wall Stabilization and Protection Project						CONTRACTOR											
ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	GOVT CLASSIFICATION OR REVIEWER	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION		DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01330	Update Submittal Register (ENG Form 4288)		G COR												
		01350	SD-07 Certificates														
			Diving Plan		FIO												
			Diving Operations Manual		FIO												
			Daily Logs		FIO												
		01355	SD-01 Preconstruction Submittals														
			Location of Storage Facilities		G COR												
			SD-07 Certificates														
			Environmental Protection Plan		G COR												
			Soil Erosion and Sediment Control Plan		G COR												
			Landfill		G COR												
		01450	SD-07 Certificates														
			Quality Control Plan		G COR												
			Qualifications		G COR												
			Changes to Quality Control Plan		G COR												
			Daily CQC Report		G COR												
			Preparatory, Initial, and Final Phase Meeting Minutes		G COR												
		01500	SD-01 Preconstruction Submittals														
			Temporary Facilities Plan		G COR												
		01720	SD-07 Certificates														
			Surveying Procedures and Equipment		G DO												
			Qualifications		G DO												

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION Fort Mifflin Sea Wall Stabilization and Protection Project						CONTRACTOR											
ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION REVW	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION		DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01720	Before Removal of Existing Riprap		G DO												
			After Removal of Existing Riprap		G DO												
			After Excavation		G DO												
			After-Placement of New Riprap		G DO												
			Before- and After-Placement of Backfill Behind the Wall		G DO												
		01780	SD-07 Certificates														
			Progress Prints		G COR												
			SD-11 Closeout Submittals														
			As-Built Drawings		G COR												
		02215	SD-04 Samples														
			Geotextile		G DO												
			SD-07 Certificates														
			Geotextile		G DO												
		02271	SD-05 Design Data														
			Riprap Source and Records		G DO												
			SD-07 Certificates														
			Riprap		G DO												
			Riprap Removal, Excavation and Placement Work Plan		G DO												
		02315	SD-07 Certificates														
			Diversion and Dewatering Plan		G DO												
			Structural Backfill		G DO												
			Geotextile		G DO												
			Excavation Work Plan		G DO												

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION Fort Mifflin Sea Wall Stabilization and Protection Project						CONTRACTOR											
ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	GOVT CLASSIFICATION OR REVIEWER	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION		DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		02315	Compaction Work Plan		G DO												
		02370	SD-03 Product Data														
			Manufacturer's Catalog Data		G DO												
			SD-04 Samples														
			Erosion Control Mat		G DO												
			SD-07 Certificates														
			Work Plan		G DO												
			Erosion Control Mat		G DO												
		02820	SD-07 Certificates														
			Work Plan		G COR												
			Fence		G COR												
			SD-04 Samples														
			Fence		G COR												
		02920	SD-07 Certificates														
			Seed		G DO												
			Fertilizer		G DO												
			Topsoil		G DO												
			Plants		FIO												
			GA		FIO												
		04920	SD-02 Shop Drawings														
			Stone Masonry Work		G DO												
			SD-03 Product Data														
			Stone		G DO												
			Grout		G DO												
			Cold Weather Installation		G DO												
			SD-04 Samples														

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION

Fort Mifflin Sea Wall Stabilization and Protection Project

CONTRACTOR

[illegible]

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 01350

DIVING SERVICES

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work specified in this section includes the development and enforcement of a diving services plan.

NOTE: Though diving services are not required as part of the general scope of work for this project, it is Philadelphia District policy to include a section covering commercial diving operations for all construction projects that are conducted on, or near, the water. The reasoning for this is the fact that unforeseen circumstances (such as lost equipment recovery, unknown sunken object investigation/removal, etc.) may require the need for commercial diving services. In the event the need for this type of operation occurs, including a commercial diving section in the contract specifications helps to ensure that the Contractor is aware of the requirements for conducting commercial diving operations on USACE Philadelphia District projects.

1.2 GENERAL REQUIREMENTS

All diving performed under this contract shall be in strict accordance with the rules and regulations prescribed by the U.S. Navy Diving Manual: 0910-LP-708-8000; 29 CFR Part 1910, Subpart T; 29 CFR Part 1915; the EM 385-1-1, Section 30; and ER 385-1-86, except as modified below. A Contracting Officer's Representative, will be designated by the Contracting Officer at the Post Award Conference, to act for the Contracting Officer for all submissions, directions and/or acceptance(s) required under the specifications. There will also be an individual designated as the District Dive Coordinator.

1.3 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ENGINEERING MANUALS (EM)

EM 385-1-1	(Latest Rev.) Safety and Health Requirements Manual
ER 385-1-86	(July 1994) Engineer Regulation, Government Personnel Diving Operations

CODE OF FEDERAL REGULATIONS (CFR)

29 CFR Part 1910	(1999) Occupational Safety and Health Standards
29 CFR Part 1915	(1999) Safety and Health Standards Applicable to Shipyard Employment

NAVAL SEA SYSTEMS COMMAND (NAVSEA)

0910-LP-708-8000

(Jan 1999) U.S. Navy Diving Manual,
Revision 4

1.4 SUBMITTALS

NOTE: The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES. These submittals are for Government acceptance. The COR may require resubmittal of these submittals if deemed necessary.

SD-07 Certificates

Diving Plan

Submit, for review, at least 10 days prior to any diving operations, a Project/Task Specific Dive Plan prior to performing any actual dive task or assignment. Each separate Dive Plan will require review and acceptance by the Contracting Officer's Representative prior to commencing any diving required under this contract. A typical Dive Plan (the Contractor may prepare a form with the appropriate subject/item already listed with blank spaces to be filled in as required for each Dive Plan submitted) shall include the following information as a minimum:

- a. Dive Plan for: (project and specific tasks).
- b. Name of Contractor (and diving subcontractor if required).
- c. Contract Number.
- d. Date of Dive Plan submission.
- e. Name of diving supervisor preparing the Dive Plan.
- f. Description of proposed work and diving mission.
- g. Approximate time and date dive mission will start.
- h. Listing of diving equipment to be used.
- i. Name or type of diving platform to be used.
- j. Planned depth of dive and maximum depth to bottom.
- k. Maximum single dive bottom time for the planned depth of dive for each diver.
- l. Surface and underwater conditions , to include visibility, temperature, thermal protection, and currents.
- m. Lockout/Tagout procedures, including procedures for dealing with differential pressures.
- n. Listing of special tools or equipment to be used.
- o. Materials to be handled or installed.

p. Listing by name each member of the diving team. The first time each diver is employed on the job, the Contractor shall attach to the dive plan a qualification statement and copy of the diver's current medical record, giving the physician's written report and opinion of the diver's fitness for exposure to hyperbaric conditions, including any limitations to such exposure. The required qualifications statement and current medical report shall be in accordance with EM 385-1-1. Diver's qualification statement and medical record need not be attached to subsequent Dive Plans unless a diver's medical report has expired and a new medical report has been submitted.

q. Listing by name each person directly involved in topside assistance/support to the dive team.

r. Listing of information and equipment required at the dive site. The following information and work materials shall be available at the dive site, either referenced in the Diving Operations Manual or work materials furnished by the Contractor: U. S. Navy Standard Air Decompression Table; Diving Log Sheets; Repetitive Dive Worksheets; Table of No-Decompression Air Dives; means of direct emergency communications between the dive site and the Contractor's project office, the Dive Coordinator/Dive Inspector; stop watch or equivalent, as required to monitor times for each diver; standard first aid supplies; litter or tilt board and a manual resuscitator capable of administering oxygen; portable VHF marine band radio as required to communicate with vessel traffic.

s. Listing of information required at the dive site and the project office; local emergency medical assistance names, locations, and telephone numbers for ambulance service, hospital, and doctor, emergency medical evacuation assistance for ground and/or air transportation facilities with point of contact names, locations and telephone numbers; nearest emergency medical facility with hyperbaric chamber capable of recompression equivalent to 165 feet of water, with point of contact names, location and telephone numbers.

t. The Dive Plan shall contain the following statement: "If for any reason the diving plan, as accepted, is altered in scope of mission, depth, personnel, or equipment, the Philadelphia District Diving Coordinator shall be contacted in order to review the proposed diving plan revision prior to the actual diving operation." (24 Hrs).

Diving Operations Manual

Submit, for review, at least 15 days prior to any diving operations, a Diving Operations Manual, which shall depict the Contractor's general plan for accomplishing the diving operations required under this contract. The Diving Operations Manual shall be reviewed by the Contracting Officer's Representative prior to commencing of any diving operations under this contract. The Diving Operations Manual shall include the following information as a minimum:

- a. A complete copy of 29 CFR Part 1910, Subpart T, and the Contractor's proposed method of complying with each of its pertinent parts.
- b. U. S. Navy Standard Air Decompression Table.
- c. A sample of the Diving Log sheets to be used under this contract.

- d. A sample of the Repetitive Dive Worksheets or equivalent (dive profile method) to be used under this contract.
- e. U. S. Navy Table of No-Decompression Limits and Repetitive Group Designation for No-Decompression Air Dives.
- f. U. S. Navy Residual Nitrogen Timetable for Repetitive Air Dives.
- g. An outline of emergency communications between the dive site and the Contractor's project office (located at the job site); Contractor-furnished portable radios, hardware, telephone hookup, etc.
- h. An outline of proposed treatment and emergency evacuation for drowning, gas embolism, decompression sickness, or traumatic injury.
- i. Emergency assistance information, including location, telephone numbers, and names of nearest doctor, hospital, emergency ground and air transportation, recompression facilities, and other appropriate medical assistance.
- j. An Activity Hazard Analysis Plan, setting forth potential hazards, means of prevention, and actions to be taken should an accident involving the potential hazard occur. Minimum coverage in the Activity Hazard Analysis Plan shall include; means of prevention and procedures for dealing with fire, equipment failure, and adverse environmental conditions, drowning, air embolism, decompression sickness, hypoxia, carbon dioxide excess, carbon monoxide excess, strangulation, various type of squeezing, fouling or entanglement, mechanical injury, overexertion/exhaustion, hypothermia, hyperthermia, currents caused by hydraulic differential through the structure, and electrocution and blowup if dry suits are used.
- k. An outline of pre-dive briefings and equipment checkout procedures for daily diving activities under this contract.
- l. An outline of qualifications and experience requirements for the dive team members, required under this contract. As a minimum, each team member shall have at least one (1) year of commercial experience in the applicable position; divers shall have completed at least four (4) working dives to the depths required by this contract, using the particular diving techniques and equipment to be used under this contract. Divers shall demonstrate that at least one (1) of the four (4) qualification dives was performed in the last six (6) months prior to the contract award date.
- m. An outline of the medical qualifications required for divers to be employed under this contract. As a minimum, each diver shall meet the certification requirements specified in 29 CFR Part 1910, Subpart T, and EM 385-1-1, Section 30.
- n. An outline of diving equipment, maintenance procedures and certification of analysis of air output for diving air supply compressors to be used under this contract. As a minimum, the equipment maintenance procedures shall indicate method of testing, frequency, and repair methods used. Diving air supply compressors' output air shall be in conformance with the following limits: oxygen - 20 to 22 percent by volume, carbon dioxide - 1,000 ppm maximum, carbon monoxide - 20 ppm maximum, total hydrocarbons - 25 ppm maximum, particulates - 5 mg/cubic meter maximum, and have no objectionable odor.

o. An outline of administrative and record-keeping procedures. As a minimum, the outline shall contain (by title of position) job responsibilities, the chain of command, daily briefing and diving safety orientation procedures, log and diving-related record-keeping responsibilities, equipment maintenance and pre-dive equipment checklist, etc.

Daily Logs

Submit each day, to the Contracting Officer/District Dive Coordinator fully completed copies of the previous day's Diving Log Sheets and any other work sheets prepared in conjunction with the Diving Log Sheets.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 RESTRICTIONS

Only surface air-supplied diving within the No-Decompression Limits, using the previously cited U. S. Navy Diving Tables, will be permitted under this contract, unless otherwise accepted by the Contracting Officer. Any deviation from or modification to the U. S. Navy Diving Tables, proposed by the Contractor, shall be submitted at the time the Diving Operations Manual is submitted, with any such deviation or modification clearly identified for review purposes.

3.2 DOCUMENTS AVAILABILITY

One (1) copy of the accepted Diving Operations Manual (to be kept in D.O.) and one (1) copy of the appropriate accepted Diving Plan shall be available at the dive site while diving operations are underway.

3.3 COORDINATION

All Diving activities shall be conducted with full knowledge and close coordination with the Contracting Officer and Dive Coordinator. Divers shall not enter the water or move from prescribed location without the acceptance of the Dive Inspector or Dive Coordinator.

3.4 PRE-DIVE CHECK

Prior to the dive and at the scene of the dive, the Contractor will meet with the USACE diving inspector and shall insure, as a minimum, the following pre-dive checks are performed:

- a. Breathing air tanks contain sufficient air supply to perform the required work, i.e., standby air tanks are on site and full to the capacity (3,000 psi). A pressure reading shall be taken to insure that approximately 3,000 psi of breathing air is contained.
- b. All diving equipment shall be checked for proper function prior to diver entry.
- c. All necessary safety equipment specified hereinbefore are on site and functioning properly.

d. Lockout/tagout procedures are followed and the diving supervisor is in possession of the key or keys.

e. Crane signals are reviewed and radio communications with the crane operator is functioning properly, when applicable.

f. Welding or cutting procedures are clearly reviewed, the proper welder polarity is set and precautions have been taken to insure that electrocution will not occur.

g. A pre-dive briefing shall be given which includes but is not limited to, the accident management plan, activity hazards analysis, equipment check list, diving logs, diving conditions, and diving procedures.

3.5 DIVE TEAM CREW REQUIREMENTS

The following dive team members are required as the minimum crew manning levels:

Comply with EM 385-1-1, Appendix N, Table III.

3.5.1 Surface-Supplied Air Mode

All working dives requiring communications between the Divers and topside to direct crane load movements, etc., shall be performed in surface-supplied air mode. The minimum crew manning level consists of the In-water Diver, Stand-by Diver, Diver Tender, and Dive Supervisor. A member of the crew shall be responsible for radio communications and timekeeping. Surface-supplied air gear shall include hardwire communications and a diver carried air reserve.

3.6 MEASUREMENT AND PAYMENT

The work specified in this section will not be measured for payment and all costs in connection therewith shall be included in the costs of all the price items.

-- End of Section --

SECTION 01355

ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.1 SCOPE OF SECTION

This section covers the furnishing of all labor, material and equipment and performing all work required for the protection of the environment during construction operations except for those measures set forth in other sections of these specifications.

1.2 REFERENCES (Not Applicable)

1.3 DEFINITION OF ENVIRONMENTAL PROTECTION

For the purpose of this specification, environmental protection is defined as the retention of the environment in its natural state to the greatest extent possible during project construction and to enhance the natural appearance in its final condition. Environmental protection requires consideration of air, water, and land resources and involves noise, solid waste-management and management of other pollutants. In order to prevent, and to provide for abatement and control of any environmental pollution arising from the construction activities in performance of this contract, the Contractor and his subcontractors shall comply with all applicable Federal, state, and local laws and regulations and shall obtain all necessary permits required by same.

1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

NOTE: Any submittals classified as "SD-01 Preconstruction Submittals" are submittals required to be submitted to, and approved by, the office indicated prior to mobilization to the contract work site. All other submittals, classified as "SD-02" through "SD-11," shall be submitted to, and approved or reviewed by, the office indicated prior to commencing the particular task to which the submittal is associated.

SD-01 Preconstruction Submittals

Location of Storage Facilities; G,COR.

Plans showing storage and staging methods shall be submitted for approval of the Contracting Officer.

SD-07 Certificates

Environmental Protection Plan; G,COR.

Prior to commencement of the work, the Contractor shall submit to the Contracting Officer for approval his proposed environmental protection plan. This shall be followed by a meeting with

representatives of the Contracting Officer to develop mutual understandings relative to compliance with this provision and administration of the environmental protection program. Approval of the Contractor's plan for environmental protection will not relieve the Contractor of his responsibility for adequate and continuing control of pollutants.

Soil Erosion and Sediment Control Plan; G,COR.

The Contractor shall prepare and submit to the Philadelphia County Soil Conservation District for certification and the PADEP's Southeast Regional Office for approval, a Soil Erosion and Sediment Control Plan. Three copies of the approved Soil Erosion and Sediment Control Plan shall be submitted to the Contracting Officer prior to the commencement of work.

Landfill; G,COR.

The Contractor shall furnish a copy of the letter of permission from any landfill to be used for the disposal of excavated materials or debris from the project site. The letter shall include any special handling required by the landfill for disposal of "special" materials.

1.5 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any non-compliance with the aforementioned Federal, state, or local laws or regulations. Such notice, when delivered to the Contractor or his authorized representative at the site of the work, shall be deemed sufficient for the purpose. The Contractor shall, after receipt of such notice, immediately inform the Contracting Officer of proposed corrective action and take such action as may be approved. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made subject of a claim for extension of time or for excess costs or damages by the Contractor.

1.6 SUBCONTRACTORS

Compliance with the provisions of this section by subcontractors will be the responsibility of the Contractor.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 PROTECTION OF LAND RESOURCES

3.1.1 General

The land resources within the project boundaries and outside the limits of permanent work performed under this contract shall be preserved in their present condition or be restored to a condition after completion of construction that will appear to be natural and not detract from the appearance of the project. The Contractor shall confine his construction activities to areas defined by the drawings and specifications. The

following additional requirements are intended to supplement the requirements of the Contract Clauses.

3.1.2 Prevention of Landscape Defacement

Except in areas indicated on the drawings or specified to be cleared, the Contractor shall not deface, injure, or destroy trees or shrubs, nor remove or cut them without the authority of the Contracting Officer. Ropes, cables, or guys shall not be fastened to or attached to any existing nearby trees for anchorages unless specifically authorized. Where such special emergency use is permitted, it shall be performed in such a manner as to avoid damage to the trees. The Contractor shall in any event be responsible for any damage resulting from such use. Where the possibility exists that trees may be defaced, bruised, injured, or otherwise damaged by the Contractor's equipment or operations, the Contractor shall adequately protect such trees. Stone, earth or other material that is displaced into uncleared areas shall be removed. Monuments and markers shall be protected before construction operations commence.

3.1.3 Restoration of Landscape Damage

Any tree, turfed areas or other landscape feature scarred or damaged by the Contractor's equipment or operations shall be restored to a condition satisfactory to the Contracting Officer. Restoration of scarred and damaged trees shall be performed in an approved manner by experienced workmen. Trees damaged beyond restoration shall be removed and disposed of under requirements for excavation. Trees that are to be removed because of damage shall be replaced at the Contractor's expense by nursery-grown trees of the same species or a species approved by the Contracting Officer. The size and quality of nursery-grown trees shall also be approved by the Contracting Officer. Any disturbed turfed (grassed) areas shall be seeded and mulched as directed by the Contracting Officer.

3.1.4 Post Construction Cleanup or Obliteration

The Contractor shall obliterate all signs of temporary construction facilities, excess materials, or any other vestiges of construction as directed by the Contracting Officer. The area will be restored to near natural conditions which will permit the growth of vegetation thereon.

3.2 RECORDING AND PRESERVING HISTORICAL AND ARCHAEOLOGICAL FINDS

All items having any apparent historical or archaeological interest which are discovered in the course of any construction activities shall be carefully preserved. The Contractor shall leave the archaeological find undisturbed and shall immediately report the find to the Contracting Officer so that proper authorities may be notified.

3.3 PROTECTION OF WATER RESOURCES

3.3.1 General

The Contractor shall not pollute any streams, rivers or waterways with fuels, oils, bitumens, calcium chloride, acids, insecticides, herbicides or other harmful materials. The Contractor shall investigate and comply with all applicable Federal, state, county, and municipal laws concerning pollution of rivers and streams.

3.3.2 Soil Erosion and Sediment Control

The Contractor shall conduct his operations in conformance with his certified Soil Erosion and Sediment Control Plan. Surface drainage from cuts and fills within the limits of the work shall be held in suitable sedimentation ponds or shall be graded to control erosion within acceptable limits. Temporary erosion and sediment control measures shall be provided and maintained until the permanent work is completed and operative. The area of bare soil exposed at any given time by construction shall be restricted to a minimum. Fills and waste areas shall be constructed by selective placement of materials to eliminate silts or clays on the surface which may erode and contaminate the adjacent waterway. The Contractor shall comply with all applicable laws concerning soil erosion and sediment control.

3.3.3 PADEP Requirements

The Contractor shall conduct his operations in conformance with all Pennsylvania Department of Environmental Protection (PADEP) sediment and stormwater regulations and the approved Erosion and Sediment Control Plan. Any proposed changes to the approved plan shall be coordinated and approved by PADEP. The Contractor shall designate a responsible individual who holds a certificate of attendance at a PADEP approved sediment and stormwater training class to administer the approved plan during the contract work. Certification must be obtained prior to initiation of any land disturbing operations.

3.4 PROTECTION OF FISH AND WILDLIFE

The Contractor shall at all times perform all work and take such steps required to minimize interference with or disturbance to fish and wildlife. The Contractor will not be permitted to alter water flows or otherwise disturb native habitat adjacent to the work area which, in the opinion of the Contracting Officer, are critical to fish and wildlife.

3.4.1 In-Water Work

The Contractor shall not perform any in-water, bottom disturbing, turbidity-creating work from March 15 to May 31. However, if a dewatered area is constructed before this time period, riprap placement or other construction, as approved by the COR, may take place in the dewatered area. The dismantling of any constructed dewatering methods shall not take place until after May 31.

3.5 DISPOSAL OF DEBRIS

Disposal of any debris resulting from the contract work and any wastes, effluents, trash, garbage, oil, grease, chemicals, etc., in or adjacent to the work area will not be permitted. All debris resulting from construction operations on this contract shall be removed from the work site and disposed of at the Contractor's expense. Such disposal shall comply with all applicable Federal, state, and local laws. Such materials shall be removed from the site of the work before the date of completion of the work under these specifications. If any waste material is dumped in unauthorized areas, the Contractor shall remove the material and restore the area to its original condition. If necessary, contaminated ground shall be excavated, disposed of as directed by the Contracting Officer, replaced with suitable fill material, compacted and finished with topsoil, and planted as required to reestablish vegetation.

3.6 MAINTENANCE OF POLLUTION, EROSION AND SEDIMENTATION CONTROL FACILITIES
DURING CONSTRUCTION

During the life of this contract, the Contractor shall maintain all facilities constructed for pollution, erosion and sedimentation control under this contract as long as the operations creating the particular pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created. During the construction period, the Contractor shall conduct frequent training sessions on environmental protection. The curricula should include methods of detecting and avoiding pollution; familiarity with pollution standards, both statutory and contractual; and installation and care of vegetative covers, plants and other facilities to prevent and correct environmental pollution.

3.7 MEASUREMENT AND PAYMENT

The work specified in this section will not be measured separately for payment and all costs in connection therewith will be included in the cost of all the price items.

-- End of Section --

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 01420

SOURCES FOR REFERENCE PUBLICATIONS

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the standards producing organization, (e.g. ASTM B 564 Nickel Alloy Forgings). However, when the standards producing organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

1.2 ORDERING INFORMATION

The addresses of the standards publishing organizations whose documents are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided. Documents listed in the specifications with numbers which were not assigned by the standards producing organization should be ordered from the source by title rather than by number. The designations "AOK" and "LOK" are for administrative purposes and should not be used when ordering publications.

AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA)
1827 Walden Ofc. Sq.
Suite 104
Schaumburg, IL 60173-4268
Ph: 847-303-5664
Fax: 847-303-5774
Internet: <http://www.aamanet.org>
AOK 5/01
LOK 2/01

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
100 Barr Harbor Drive
West Conshohocken, PA 19428-2959
Ph: 610-832-9585
Fax: 610-832-9555
Internet: <http://www.astm.org>
AOK 5/01
LOK 3/01

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION (PennDOT)
Forum Place
555 Walnut Street
Harrisburg, PA 17101-1900
Internet: <http://www.dot.state.pa.us>

U.S. ARMY CORPS OF ENGINEERS (USACE)

Order CRD-C DOCUMENTS from:
U.S. Army Engineer Waterways Experiment Station

ATTN: Technical Report Distribution Section, Services
Branch, TIC
3909 Halls Ferry Rd.
Vicksburg, MS 39180-6199
Ph: 601-634-2664
Fax: 601-634-2388
Internet: <http://www.wes.army.mil/SL/MTC/handbook/handbook.htm>

Order Other Documents from:
USACE Publications Depot
Attn: CEIM-SP-D
2803 52nd Avenue
Hyattsville, MD 20781-1102
Ph: 301-394-0081
Fax: 301-394-0084
Internet: <http://www.usace.army.mil/publications>
or <http://www.hnd.usace.army.mil/techinfo/index.htm>
AOK 5/01
LOK 6/00

U.S. ARMY CORPS OF ENGINEERS (PHILADELPHIA DISTRICT)
100 Penn Square East
Wanamaker Building
Philadelphia, PA 19107
Ph: 215-656-6519/6520

-- End of Section --

SECTION 01450

CONTRACTOR QUALITY CONTROL

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work specified in this section includes the development and implementation of a quality control program that consists of plans, procedures, and an organization necessary to produce an end product which complies with the contract requirements.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 3740	(2001) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
ASTM E 329	(2000b) Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-07 Certificates

Quality Control Plan; G,COR.

Quality control plan shall be submitted not later than 10 days after receipt of notice to proceed, and prior to the start of work.

Qualifications; G,COR.

Qualifications of CQC System Manager, Alternate CQC System Manager, and other CQC Personnel indicated in "Experience Matrix."

Changes to Quality Control Plan; G,COR.

Contractor shall notify Contracting Officer, in writing, of any proposed change to the CQC Plan or personnel.

Daily CQC Report; G,COR.

Submitted within 24 hours after the date covered by the report.

Preparatory, Initial, and Final Phase Meeting Minutes; G,COR.

Minutes to be attached to the Daily Quality Control Report for the day of the meeting.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause titled "Inspection of Construction." The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence. The site project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with the quality requirements specified in the contract. The site project superintendent in this context shall be the highest level manager responsible for the overall construction activities at the site, including quality and production. The site project superintendent shall maintain a physical presence at the site at all times, except as otherwise acceptable to the Contracting Officer, and shall be responsible for all construction and construction related activities at the site.

3.2 QUALITY CONTROL PLAN

The Contractor shall furnish for review by the Government, not later than 10 days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause titled "Inspection of Construction." The plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used. Construction will be permitted to begin only after acceptance of the CQC Plan.

3.2.1 Content of the CQC Plan

The CQC Plan shall include, as a minimum, the following to cover all construction operations, both onsite and offsite, including work by subcontractors, fabricators, suppliers, and purchasing agents:

- a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to the project superintendent.
- b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.

- c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.
- d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with Section 01330 SUBMITTAL PROCEDURES.
- e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will be approved by the Contracting Officer.)
- f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.
- g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.
- h. Reporting procedures, including proposed reporting formats.
- i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable features under a particular section. This list will be agreed upon during the coordination meeting.

3.2.2 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.3 Notification of Changes

After acceptance of the CQC Plan, the Contractor shall notify the Contracting Officer in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 COORDINATION MEETING

After the Preconstruction Conference, before start of construction, and prior to acceptance by the Government of the CQC Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 7 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 Personnel Requirements

The requirements for the CQC organization are a CQC System Manager and sufficient number of additional qualified personnel to ensure safety and contract compliance. Personnel identified in the technical provisions as requiring specialized skills to assure the required work is being performed properly will also be included as part of the CQC organization. The Contractor's CQC staff shall maintain a presence at the site at all times during progress of the work and have complete authority and responsibility to take any action necessary to ensure contract compliance. The CQC staff shall be subject to acceptance by the Contracting Officer. The Contractor shall provide adequate office space, filing systems and other resources as necessary to maintain an effective and fully functional CQC organization. Complete records of all letters, material submittals, show drawing submittals, schedules and all other project documentation shall be promptly furnished to the CQC organization by the Contractor. The CQC organization shall be responsible to maintain these documents and records at the site at all times, except as otherwise acceptable to the Contracting Officer.

3.4.2 CQC System Manager

The Contractor shall identify as CQC System Manager an individual within the onsite work organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager shall be a construction person with a minimum of 10 years of current experience in related work. This CQC System Manager shall be on the site at all times during construction and shall be employed by the prime Contractor. The CQC System Manager shall be assigned as System Manager but may have other duties such as project superintendent in addition to quality control. An alternate for the CQC System Manager shall be identified in the plan to serve in the event of the System Manager's absence. The requirements for the alternate shall be the same as for the designated CQC System Manager.

3.4.3 CQC Personnel

In addition to CQC personnel specified elsewhere in the contract, the Contractor shall provide as part of the CQC organization, as necessary, specialized personnel to assist the CQC System Manager. These individuals may be employees of the prime or subcontractor; be responsible to the CQC

System Manager; be physically present at the construction site during work on their areas of responsibility; have the necessary education and/or experience in accordance with the experience matrix listed herein. These individuals may perform other duties but must be allowed sufficient time to perform their assigned quality control duties as described in the Quality Control Plan.

3.4.4 Additional Requirement

In addition to the above experience requirements the CQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors". This course is provided at the project site.

3.4.5 Organizational Changes

The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

3.5 SUBMITTALS AND DELIVERABLES

Submittals, if needed, shall be made as specified in Section 01330 SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals and deliverables are in compliance with the contract requirements.

3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of work as follows:

3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall include:

- a. A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field shall be made available by the Contractor at the preparatory inspection. These copies shall be maintained in the field and available for use by Government personnel until final acceptance of the work.
- b. A review of the contract drawings.
- c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.
- d. Review of provisions that have been made to provide required control inspection and testing.
- e. Examination of the work area to assure that all required

preliminary work has been completed and is in compliance with the contract.

- f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
- g. A review of the appropriate activity hazard analysis to assure safety requirements are met.
- h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.
- i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.
- j. Discussion of the initial control phase.
- k. The Government shall be notified at least 24 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.6.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

- a. A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
- b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.
- c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.
- d. Resolve all differences.
- e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- f. The Government shall be notified at least 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
- g. The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not

being met.

3.6.3 Follow-up Phase

Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by the deficient work. The Contractor shall not build upon nor conceal non-conforming work.

3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on the same definable features of work if: the quality of on-going work is unacceptable; if there are changes in the applicable CQC staff, onsite production supervision or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.

3.7 TESTS

3.7.1 Testing Procedure

The Contractor shall perform specified or required tests to verify that control measures are adequate to provide a product which conforms to contract requirements. Upon request, the Contractor shall furnish to the Government duplicate samples of test specimens for possible testing by the Government. Testing includes operation and/or acceptance tests when specified. The Contractor shall procure the services of a Corps of Engineers approved testing laboratory or establish an approved testing laboratory at the project site. The Contractor shall perform the following activities and record and provide the following data:

- a. Verify that testing procedures comply with contract requirements.
- b. Verify that facilities and testing equipment are available and comply with testing standards.
- c. Check test instrument calibration data against certified standards.
- d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
- e. Results of all tests taken, both passing and failing tests, shall be recorded on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test shall be given. If approved by the Contracting Officer, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of tests performed by an offsite or commercial test facility shall be provided directly to the Contracting Officer. Failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.

3.7.2 Testing Laboratories

3.7.2.1 Capability Check

The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing soils, concrete, asphalt, and steel shall meet criteria detailed in ASTM D 3740 and ASTM E 329.

3.7.2.2 Capability Recheck

If the selected laboratory fails the capability check, the Contractor will be assessed a charge of \$1500 to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the contract amount due the Contractor.

3.7.3 Onsite Laboratory

The Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests, and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

3.7.4 Furnishing or Transportation of Samples for Testing

Costs incidental to the transportation of samples or materials shall be borne by the Contractor. Samples of materials for test verification and acceptance testing by the Government shall be delivered to the Corps of Engineers Division Laboratory, f.o.b., at the address provided by the COR.

3.8 COMPLETION INSPECTION

3.8.1 Punch-Out Inspection

Near the end of the work, or any increment of the work established by a time stated in the Special Clause, "Commencement, Prosecution, and Completion of Work", or by the specifications, the CQC Manager shall conduct an inspection of the work. A punch list of items which do not conform to the approved drawings and specifications shall be prepared and included in the CQC documentation, as required by paragraph DOCUMENTATION. The list of deficiencies shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected.

Once this is accomplished, the Contractor shall notify the Government that the facility is ready for the Government Pre-Final inspection.

3.8.2 Pre-Final Inspection

The Government will perform the pre-final inspection to verify that the facility is complete and ready to be occupied. A Government Pre-Final Punch List may be developed as a result of this inspection. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected before notifying the Government, so that a Final inspection with the customer can be scheduled. Any items noted on the Pre-Final inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph shall

be accomplished within the time slated for completion of the entire work or any particular increment of the work if the project is divided into increments by separate completion dates.

3.8.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative shall be in attendance at the final acceptance inspection. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notice shall be given to the Contracting Officer at least 14 days prior to the final acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the contract clause titled "Inspection of Construction".

3.9 DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:

- a. Contractor/subcontractor and their area of responsibility.
- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- d. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase shall be identified (Preparatory, Initial, Follow-up). List of deficiencies noted, along with corrective action.
- e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.
- f. Submittals and deliverables reviewed, with contract reference, by whom, and action taken.
- g. Offsite surveillance activities, including actions taken.
- h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- i. Instructions given/received and conflicts in drawings and/or specifications.

j. Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within 24 hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

3.10 SAMPLE FORMS

Sample forms enclosed at the end of this section.

3.11 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

3.12 MEASUREMENT AND PAYMENT

The work specified in this section will not be measured separately for payment and all costs in connection therewith will be included in the cost of all the price items.

-- End of Section --

(Sample of typical Contractor Quality Control Report)

CONTRACTOR'S NAME
(address)

DAILY CONSTRUCTION QUALITY CONTROL REPORT

Contract No. _____ Date _____

Project Name _____ Report No. _____

Weather _____

Phases of Construction in Progress (Give briefly only phase or phases of work in progress)

Material and/or Equipment Delivered to Site (Including equipment demob)

Inspection Made (Include negative inspections, phase of in-progress construction work inspected and all deficiencies noted during inspections)

Preparatory

Initial

Follow-up

Tests Performed and Results or Tests (including results of tests taken on previous dates)

Verbal Instructions Received (List any instructions given by Contracting Officer personnel on construction deficiencies, retesting required etc., with action to be taken)

Changed Conditions/Delays/Conflicts Encountered

Remarks

SIGNATURE _____
Quality Control Inspector

Contractor' s Verification: The above report is complete and correct and all material and equipment used and work performed during this reporting period are in compliance with the contract and specifications except as noted above, and job safety and health requirements are in accordance with the USACE Safety and Health Requirements Manual EM 385-1-1.

Contractor' s Approved Authorized Representative

SECTION 01500

TEMPORARY CONSTRUCTION

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work covered by this section consists of furnishing all labor, materials, plant and equipment, and performing all operations required for the construction of storage areas, and service facilities needed for execution and completion of the work. Also included are the provisions for a Contractor field office, a Government field office, project and safety signs, and a traffic control plan.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

NOTE: Any submittals classified as "SD-01 Preconstruction Submittals" are submittals required to be submitted to, and approved by, the office indicated prior to mobilization to the contract work site. All other submittals, classified as "SD-02" through "SD-11," shall be submitted to, and approved or reviewed by, the office indicated prior to commencing the particular task to which the submittal is associated.

SD-01 Preconstruction Submittals

Temporary Facilities Plan; G,COR.

The Contractor shall submit to the Contracting Officer for approval, prior to the start of work, its plans showing the layout and details of all temporary facilities to be used for this contract, including the proposed locations of staging and proposed alignment of all safety fencing.

1.3 STAGING AREA

The staging areas indicated on the contract drawings are available for the Contractor's use for the purposes indicated on the drawings. The entire Fort Mifflin site has cultural and historical significance. Consequently, any of the Contractor's activities in and about the Fort will be subject to the COR's approval. The Contractor shall minimize the total area used and the amount of materials and equipment staged so to minimize the disturbance to the project site.

1.4 CONTRACTOR PARKING

The Contractor's and subcontractor's employees shall park in the parking area indicated on the contract drawings. Unless otherwise approved by the COR, a maximum of 10 vehicles shall park in this area.

1.5 ACCESS

See Section 01010 SUMMARY OF WORK for restrictions on access to the staging areas and active work area.

1.6 AVAILABILITY AND USE OF UTILITY SERVICES

The Contractor shall provide and maintain all utilities required to complete the contract work including field-type sanitary facilities, electric, and mobile telephone services.

1.7 BULLETIN BOARD, PROJECT SIGN, AND PROJECT SAFETY SIGN

1.7.1 Bulletin Board

Immediately upon beginning of work, the Contractor shall provide a weatherproof glass-covered bulletin board not less than 36 by 48 inches in size for displaying the Equal Employment Opportunity poster, a copy of the wage decision contained in the contract, Wage Rate Information poster, and other information approved by the Contracting Officer. The bulletin board shall be located at the project site in a conspicuous place easily accessible to all employees, as approved by the Contracting Officer. Legible copies of the aforementioned data shall be displayed until work is completed. Upon completion of work the bulletin board shall be removed by and remain the property of the Contractor.

1.7.2 Project and Safety Signs

The requirements for the signs, their content, and location shall be as shown on the attached sheets. The Contractor shall include "City of Philadelphia - Department of Recreation" as the project sponsor.

1.8 PROTECTION AND MAINTENANCE OF TRAFFIC

The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with public traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

1.9 PLANT COMMUNICATION

Whenever the Contractor has the individual elements of its plant so located that operation by normal voice between these elements is not satisfactory, the Contractor shall install a satisfactory means of communication, such as telephone or other suitable devices. The devices shall be made available for use by Government personnel.

1.10 CLEANUP

Construction debris, waste materials, packaging material and the like shall be removed from the work site daily. Any dirt or mud which is tracked onto paved or surfaced roadways shall be cleaned away. Stored material not in trailers, whether new or salvaged, shall be neatly stacked when stored.

1.11 RESTORATION OF STORAGE AREA

Upon completion of the project and after removal of trailers, materials, and equipment from within the fenced area, temporary fencing shall be removed and will become the property of the Contractor. Areas used by the Contractor for the storage of equipment or material, or other use, shall be

restored to the original or better condition. Grassed areas shall be removed and the area restored to its original condition, including top soil and seeding as necessary. Paved areas shall be repaired to original condition, including painting with asphalt paint, as directed by the COR. Damage to any items, due to the Contractor's operations shall be repaired and replaced at the Contractor's expense.

PART 2 PRODUCTS

2.1 TEMPORARY SAFETY FENCE

The temporary safety fencing shall be a high visibility orange colored, high density polyethylene grid or approved equal, a minimum of 42 inches high.

2.2 FIELD OFFICE

The field office trailer to be provided by the Contractor shall be new or recently renovated to a like-new condition subject to the approval of the Contracting Officer. The field office shall have a minimum floor area of 440 square feet, two locking doors, and partitioned restroom facilities. The trailer shall have sufficient lighting to supply 150 foot-candles at the desk top level and shall be supplied with 110 volt and 220 volt electrical outlets as required for heating, air conditioning, lighting, water cooler, and other accessories. The field office trailer shall be shared by the Contractor and Government, however, the Government shall be provided with two private office spaces within that trailer.

2.2.1 Furnishings for Exclusive Use by Government

The following office equipment shall be provided by the Contractor for the exclusive use by the Government in the private offices designated for the Government:

- a. Two desks having 60-inch by 30-inch tops, with lockable drawers and two swivel chairs;
- b. Telephone, two sets, two numbers, unlimited calling area, and one telephone answering machine;
- c. Fire resistant, four-drawer, lockable legal size filing cabinet, two sets;
- d. Two shelf sets, two shelves high, each measuring 12-inch deep by 3-feet long, one per desk;
- e. Two waste baskets;
- f. Vertical filing plan rack for two sets of 28-inch by 40-inch plans;
- g. Two portable two-way marine radios with charges capable of operating on the Contractor's working frequencies; and,
- h. Two Personal Computers, Pentium IV, with a clock speed of at least 1.8 GHz, 256 megabyte RAM, 10 gigabyte hard disk drive, a 56k bps fax/modem, 10/100 Ethernet card, and a laser jet printer. The following software shall be included: MS Windows 2000 Operating System with SP3.

2.2.2 Furnishings for Non-exclusive Use by the Government

The following office equipment shall be provided by the Contractor for the use by the Government, but may be shared with the Contractor:

- a. Electric water cooler;
- b. Copier, Konica Model 3290 desk top copier, or approved equal, including adequate supplies and service agreement ;
- c. Fax Machine, Xerox Model N58, or approved equal, including adequate supplies and service agreement;
- d. Countertop microwave oven, with digital display, interior light, and a minimum 0.6 cubic feet capacity; and,
- e. Compact refrigerator, with 1.58 cubic foot capacity, and ice tray.

PART 3 EXECUTION

3.1 COMPUTERS FOR USE BY GOVERNMENT

The computers provided for use by the Government shall be shipped to the following address:

U.S. Army Corps of Engineers
Information Management Office
100 Penn Square East
Wanamaker Building
Philadelphia, PA 19107

Upon completion of loading the computers with Government furnished software, the Contractor shall provide for transportation of the computers from the Philadelphia District office to the field office at the project site.

3.2 CARE AND MAINTENANCE OF FIELD OFFICE

The field office shall be complete and ready for occupancy not later than 30 days after receipt of Notice to Proceed.

- a. The Contractor shall provide the trailer at the work site with adequate heat, light, electricity, air conditioning, water, toilet and lavatory facilities. The Contractor shall provide potable water, provide for treatment of sewage, and provide permanent electric and telephone services, all in accordance with applicable local municipal, county and State codes. All utility costs arising from the use of the office, including telephone cost, shall be borne by the Contractor.
- b. The trailer shall be placed on concrete block supports, leveled and tied down to withstand wind loads. A corrugated metal curtain shall be installed around the perimeter of the trailer from floor level to the ground. The curtain shall be firmly attached to withstand appropriate wind loads. All water piping and all waste piping shall be adequately supported and insulated.
- c. The Contractor shall provide all janitorial supplies and

services for the trailer complex to include as a minimum, weekly sweeping, dusting, emptying of waste baskets, trash collection, servicing of toilets, mopping of all floors, and sterilization of toilet seats. The Contractor shall also provide for major maintenance to the trailer and its utilities.

d. The Contractor shall provide the above described facilities, equipment, and services for the life of the contract.

3.3 TEMPORARY PROJECT SAFETY FENCING

As soon as practicable, but not later than 15 days after the date established for commencement of work, the Contractor shall furnish and erect temporary project safety fencing at the staging area and the active work site to alert the public to the Contractor's staging and work area. The safety fencing shall be supported and tightly secured to steel posts located on maximum 10 foot centers, constructed at the approved location. The safety fencing shall be maintained by the Contractor during the life of the contract and, upon completion and acceptance of the work, shall become the property of the Contractor and shall be removed from the work site.

3.4 REMOVAL/REINSTALLATION AND PROTECTION OF EXISTING STRUCTURES

The Contractor shall determine what existing structures shall require removal and reinstallation upon completion of the contract work. At a minimum: an existing chain link fence, located at the top of the wall, at the north end; lamp posts along the access route; and one historical interpretative sign shall require removal and reinstallation at the end of the contract work. These items shall be reinstalled in concrete as directed by the COR. The Contractor shall, at his own expense, replace those items damaged during the removal, storage, and reinstallation of these items. Trees and vegetation may require trimming. Any trimming or altering of any existing items shall be subject to the approval of the COR. Timber mats shall be placed on existing asphalt driveways and walkways for their protection. Other measures to protect existing structures shall be implemented as directed by the COR.

3.5 INSTALLATION OF PROJECT AND SAFETY SIGNS

The Contractor shall provide a project identification sign and safety performance sign at the locations directed by the Contracting Officer. The signs shall be installed in accordance with mounting details shown on the sheet attached to this section of the specification. The signs shall be installed within 15 days of the date of Notice to Proceed and shall be maintained in good condition throughout the contract period. The information contained on the face of the safety performance sign regarding the Contractor's safety record shall be updated on a daily basis throughout the contract period. Upon completion of the contract work, the Contractor shall remove the signs from the work site and backfill all resulting holes.

3.6 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for the work specified in this section and all costs in connection therewith shall be included in the costs of all price items.

-- End of Section --

THIS PAGE INTENTIONALLY LEFT BLANK

Below are two samples of the construction project identification sign showing how this panel is adaptable for use to identify either military (top) or civil works projects (bottom). The graphic format for this 4' x 6' sign panel follows the legend guidelines and layout as specified below. The large 4' x 4' section of the panel on the right is to be white with black legend.

The 2' x 4' section of the sign on the left with the full Corps Signature (reverse version) is to be screen printed Communications Red on the white background. The designation of a sponsor in the area indicated is optional with Military or Civil Works construction signs. Signs may list one sponsoring entity. If agreement on a sponsor designation cannot be achieved,

the area should be left blank.

This sign is to be placed with the Safety Performance sign shown on the following page. Mounting and fabrication details are provided on page 16.4.

Special applications or situations not covered in these guidelines should be referred to the District/Division Sign Program Manager.

Legend Group 1: One- to two-line description of Corps relationship to project.

Color: White
Typeface: 1.25" Helvetica Regular
Maximum line length: 19"

Legend Group 2: Division or District Name (optional). Placed below 10.5" reverse Signature (6" Castle).

Color: White
Typeface: 1.25" Helvetica Regular

Legend Group 2a: One- to three-line identification of Military or Civil Works sponsor (optional). Place below Corps Signature to cross-align with Group 5a-b.

Color: White
Typeface: 1.25" Helvetica Regular
Maximum line length: 19"

Legend Group 3: One- to three-line project title legend describes the work being done under this contract.

Color: Black
Typeface: 3" Helvetica Bold
Maximum line length: 42"

Legend Group 4: One- to two-line identification of project or facility (civil works) or name of sponsoring department (military).

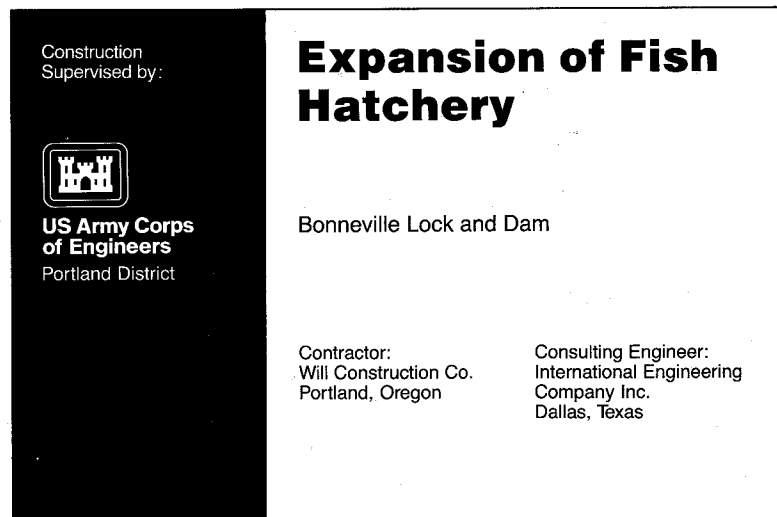
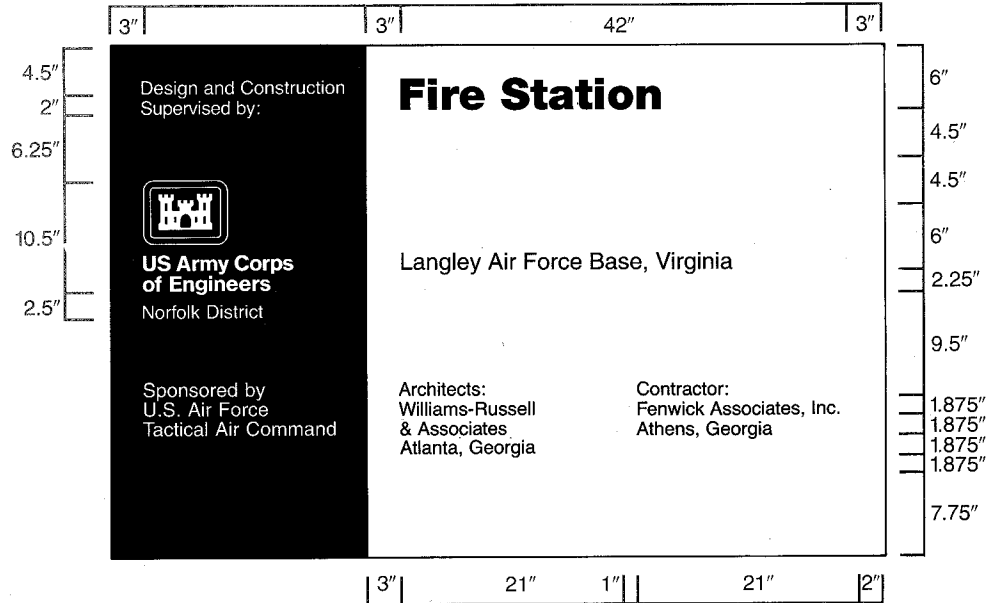
Color: Black
Typeface: 1.5" Helvetica Regular
Maximum line length: 42"

Cross-align the first line of Legend Group 4 with the first line of the Corps Signature (US Army Corps) as shown.

Legend Groups 5a-b: One- to five-line identification of prime contractors including: type (architect, general contractor, etc.), corporate or firm name, city, state. Use of Legend Group 5 is optional.

Color: Black
Typeface: 1.25" Helvetica Regular
Maximum line length: 21"

All typography is flush left and rag right, upper and lower case with initial capitals only as shown. Letter- and word-spacing to follow Corps standards as specified in Appendix D.



Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
CID-01	various	4' x 6'	4" x 4"	HDO-3	48"	WH-RD/BK

Each contractor's safety record is to be posted on Corps managed or supervised construction projects and mounted with the construction project identification sign specified on page 16.2.

The graphic format, color, size and type-faces used on the sign are to be reproduced exactly as specified below.

Legend Group 1: Standard two-line title "Safety is a Job Requirement" with (8" od.) Safety Green First Aid logo.
Color: To match PMS 347
Typeface: 3" Helvetica Bold
Color: Black

Legend Group 2: One- to two-line project title legend describes the work being done under this contract and name of host project.
Color: Black
Typeface: 1.5" Helvetica Regular
Maximum line length: 42"

Legend Group 3: One- to two-line identification: name of prime contractor and city, state address.
Color: Black
Typeface: 1.5" Helvetica Regular
Maximum line length: 42"

Legend Group 4: Standard safety record captions as shown.
Color: Black
Typeface: 1.25" Helvetica Regular

Replaceable numbers are to be mounted on white .060 aluminum plates and screw-mounted to background.
Color: Black
Typeface: 3" Helvetica Regular
Plate size: 2.5" x 4.5"

All typography is flush left and rag right, upper and lower case with initial capitals only as shown. Letter and word spacing to follow Corps standards as specified in Appendix D.

The title with First Aid logo in the top section of the sign, and the performance record captions are standard for all signs of this type. Legend groups 2 and 3 below identify the project and the contractor and are to be placed on the sign as shown.

Safety record numbers are mounted on individual metal plates and are

screw-mounted to the background to allow for daily revisions to posted safety performance record.

Special applications or situations not covered in these guidelines should be referred to the District/Division Sign Program Manager.

Safety is a Job Requirement



Public Use Area Development, Stage IV
Osage River Basin

Pacific Marine Construction Corporation
Galveston, Texas

This project started

4

14

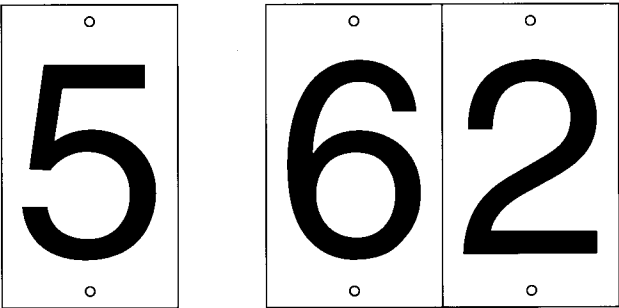
91

Date since last
lost time accident

Total lost time injuries

0

Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
CID-02	various	4' x 4'	4" x 4"	HDO-3	48"	WH/BK-SG



All Construction Project Identification signs and Safety Performance signs are to be fabricated and installed as described below. The signs are to be erected at a location designated by the Contracting Officer Representative and shall conform to the size, format, and typographic standards shown on pages

The sign panels are to be fabricated from .75" High Density Overlay Plywood. Panel preparation to follow HDO specifications provided in Appendix B.

Sign graphics to be prepared on a white non-reflective vinyl film with positionable adhesive backing.

All graphics except for the Communications Red background with Corps signature on the project sign are to be die-cut or computer-cut non-reflective vinyl, pre-spaced legends prepared in the sizes and typefaces specified and applied to the background panel following the graphic formats shown on pages 16.2-3.

The 2' x 4' Communications Red panel (to match PMS-032) with full Corps signature (reverse version) is to be screen printed on the white background. Identification of the district or division may be applied under the signature with white cut vinyl letters prepared to Corps standards. Large scale reproduction artwork for the signature is provided on page 4.8 (photographically enlarge from 6.875" to 10.5").

Drill and insert six (6) .375" T-nuts from the front face of the HDO sign panel. Position holes as shown. Flange of T-nut to be flush with sign face.

Apply graphic panel to prepared HDO plywood panel following manufacturers' instructions.

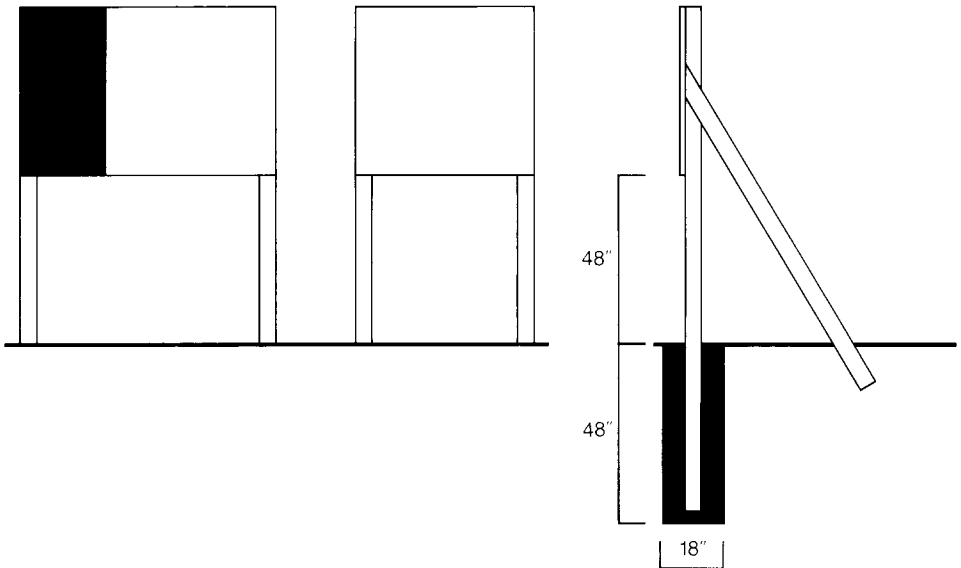
Sign uprights to be structural grade 4" x 4" treated Douglas Fir or Southern Yellow Pine, No.1 or better. Post to be 12' long. Drill six (6) .375" mounting holes in uprights to align with T-nuts in sign panel. Countersink (.5") back of hole to accept socket head cap screw (4" x .375").

Assemble sign panel and uprights. Imbed assembled sign panel and uprights in 4' hole. Local soil conditions and/or wind loading may require bolting additional 2" x 4" struts on inside face of uprights to reinforce installation as shown.

16.2-3. Detailed specifications for HDO plywood panel preparation are provided in Appendix B.

Shown below the mounting diagram is a panel layout grid with spaces provided for project information. Photocopy this page and use as a worksheet when preparing sign legend orders.

For additional information on the proper method to prepare sign panel graphics, contact the District/Division Sign Program Manager.



Construction Project Sign Legend Group 1: Corps Relationship

1. _____
2. _____

Legend Group 2: Division/District Name

1. _____
2. _____

Legend Group 3: Project Title

1. _____
2. _____
3. _____

Legend Group 4: Facility Name

1. _____
2. _____

Legend Group 5a: Contractor/A&E

1. _____
2. _____
3. _____
4. _____
5. _____

Legend Group 2a: Military/Civil Works Sponsor

1. _____
2. _____

Legend Group 5b: Contractor/A&E

1. _____
2. _____
3. _____
4. _____
5. _____

Safety Performance Sign Legend Group 1: Project Title

1. _____
2. _____

Legend Group 2: Contractor/A&E

1. _____
2. _____

This page was intentionally left blank for duplex printing.

SECTION 01720

SURVEY REQUIREMENTS

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work covered by this section consists of furnishing all labor, materials, plant and equipment, and performing all operations required in conducting surveys and survey data submittals.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

U.S. ARMY CORPS OF ENGINEERS (COE)

EM 1110-1-1005 (31 Aug 1994) Topographic Surveying Manual

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-07 Certificates

Surveying Procedures and Equipment; G,DO.

All surveying procedures, methods, and equipment for landward surveys shall be reviewed and approved by the Government Survey Point of Contact prior to the start of any type of surveying work.

Qualifications; G,DO.

Provide qualifications of the independent licensed surveyor(s) for land surveying.

Before Removal of Existing Riprap; G,DO.

Surveys shall be conducted before removal of the existing riprap. Before-surveys shall be completed within 2 days of removal of the riprap.

After Removal of Existing Riprap; G,DO

After-surveys shall be completed within 24 hours after removal of existing riprap.

After Excavation; G,DO

After-surveys shall be completed within 24 hours after excavation

of soil beneath existing riprap.

After-Placement of New Riprap; G,DO.

Surveys shall be conducted after placement of new riprap. Surveys shall be conducted within 2 days after placement of new riprap.

Before- and After-Placement of Backfill Behind the WallG,DO.

Surveys shall be conducted before and after placement of structural backfill behind the wall. Before-surveys shall be completed within 2 days of excavation of the areas behind the wall. After-surveys shall be completed after within 24 hours of completion of the placement.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 SURVEY REQUIREMENTS

The Contractor shall be responsible for conducting all surveys required to either demonstrate that the construction is in compliance with the specified tolerances and the lines, grades, and elevations shown on the drawings, and, for payment purposes. Surveys shall be taken by a Pennsylvania licensed surveyor. Surveys shall be taken of the following:

- a. Before removal of the existing riprap.
- b. After removal of the existing riprap.
- c. After excavation to required elevations.
- d. After placement of the new riprap.
- e. Before and after placement of the backfill behind the wall.

3.2 GENERAL SURVEY REQUIREMENTS

3.2.1 Control

Survey control will be established from the existing survey control description data information as shown on the contract drawings and listed in Section 00840 SURVEY DESCRIPTION SHEETS. The Contractor shall utilize MLW as the vertical datum. The Contractor shall utilize Pennsylvania State Plane Coordinate System (NAD 1983) as the horizontal reference datum.

3.2.2 Intervals

The surveys shall be taken at the same stations as the cross-sections shown on the contract drawings. Elevations along the cross-sections shall be taken at a maximum of 5 foot intervals, with additional elevations taken as necessary to describe all topographic features.

3.2.3 Tolerances

The landward portion of the profile lines shall be surveyed utilizing surveying procedures and methodology that meet or exceed accuracy

tolerances of +/- 0.10 feet in the vertical and +/- 0.50 feet in the horizontal, with a 95% confidence level. All topographic or land based surveys performed in conjunction with this Contract shall meet all criteria outlined in EM 1110-1-1005.

All surveying procedures, methods and equipment, shall be reviewed and approved by the Government Survey Point of Contact prior to the conduct of any type of surveying work. This review process shall also include the review and acceptance of the Surveyor's Qualifications, as defined in the Paragraph entitled: "Qualifications of Surveyor".

3.2.4 Data Submittal

All survey cross section data shall be reduced and tabulated as a series of offset and elevation pairs. Horizontal distances of each survey point shall be referenced as negative seaward from the established Corps baseline point, and positive landward from the baseline. In addition, all survey points shall be recorded in three dimensions, using the Pennsylvania State Plane Coordinate System, NAD83 and MLW for elevations. The data shall be entered into a digital format in the DOS operating system on 1.44 Mb 3 1/2" double sided/high density micro disks or CD. The data shall be submitted in the following file:

ASCII files using distances offset from the baseline (X) and elevation (Z).

ASCII files having a descriptive header for each profile line followed by three columns: Eastings (X), Northings (Y) and Elevation (Z).

Plotted cross section drawings in AutoCAD 2000 format shall also be submitted for each cross section survey taken. The grid spacing shall be 5 feet in the vertical and 5 feet in the horizontal. Each drawn cross section shall show the station that it was taken from. These drawings shall be submitted on CD.

3.2.5 Timely Submission of Survey Data

Survey data, unless specified otherwise, shall be submitted to the COR within 5 workdays of completion of the surveys.

3.3 MEASUREMENT AND PAYMENT

The work specified in this section for surveying will not be measured for payment. All costs in connection therewith shall be considered incidental to those price items to which the surveys are incidental.

-- End of Section --

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 01780

AS-BUILT DRAWINGS

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work specified in this section includes the preparation of as-built drawings complete, as a requirement of this contract.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-07 Certificates

Progress Prints; G,COR.

The Contractor shall submit as-built marked prints with submission of each monthly pay estimate.

SD-11 Closeout Submittals

As-Built Drawings; G,COR.

The Contractor shall submit as-built drawings as specified herein.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 PROGRESS MARKED-UP AS-BUILT PRINTS

The Contractor shall mark-up one set of paper prints to show the as-built conditions for the project. These as-built marked prints shall be kept current and available on the jobsite at all times. All changes from the contract drawings which are made in the work or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded as they occur by means of details and notes. The as-built marked prints will be jointly inspected for accuracy and completeness by the Contracting Officer's representative and a responsible representative of the Construction Contractor prior to submission of each monthly pay estimate. The drawings shall show the following information, but not be limited thereto:

- a. The location and description of any installations of any kind or description known to exist within the construction area. The location shall include dimensions to permanent features.
- b. The location and dimensions of any changes within the structure.
- c. Correct grade or alignment of structures if any changes were made from

the contract drawings.

- d. Correct elevation if changes were made in site grading.
- e. Changes in details of design or additional information obtained from working drawings specified to be prepared and/or furnished by the Contractor including but not limited to fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.
- f. The topography and grades of all drainage installed or affected as part of the project construction.
- g. All changes or modifications which result from the final inspection.

3.2 PRELIMINARY SUBMITTALS

The Contractor shall prepare the progress as-built prints and these shall be delivered to the Contracting Officer at the time of final inspection for his review and approval. These as-built marked prints shall be neat, legible and accurate. The review by Government personnel will be expedited to the maximum extent possible. Upon approval, the as-built marked prints will be returned to the Contractor for use in preparation of final as-built drawings. If upon review, the drawings are found to contain errors and/or omissions, they will be returned to the Contractor for corrections. The Contractor shall complete the corrections and return the as-built marked prints to the Contracting Officer within ten (10) calendar days.

3.3 DRAWING PREPARATION

3.3.1 General Requirements

Upon approval of the as-built prints submitted, the Contractor will be furnished the contract drawings on 3-1/2 inch floppy disks or compact disc (CD) in AutoCAD 2000 format with all amendments incorporated. The drawing files shall be modified as necessary to correctly show all the features of the project as it has been constructed by bringing the contract set into agreement with the approved as-built prints, adding such additional drawings as may be necessary.

3.3.2 Modification of Contract Drawings

Only personnel proficient in the preparation of engineering drawings and the use of AutoCAD 2000, to standards satisfactory and acceptable to the Contracting Officer, shall be employed to modify the contract drawings or prepare additional new drawings. All additions and corrections to the contract drawings shall be done using AutoCAD 2000 in a professional manner, and shall match the existing linework and/or lettering used on the drawings in type, density, size and style. The title block to be used for any new as-built drawings shall be the same as that used on the original drawings.

3.3.3 Identification of Final As-Built Drawings

When final revisions have been completed, each drawing shall be identified with the words "RECORD DRAWING AS-BUILT" followed by the name of the General Contractor in letters at least 3/16-inch high. All contract drawings shall be annotated and dated in the revision block as either "AS-BUILT DRAWING" denoting no revision on the sheet or "REVISED AS-BUILT

DRAWING" denoting one or more revisions. For drawings having as-built revisions, a revision number contained within a 3/16 inch high triangle shall be included in the revision block. All changes to drawings shall be encircled with a series of short arcs forming a "cloud", with the triangle revision number positioned immediately next to each cloud.

3.4 FINAL REQUIREMENTS

After receipt by the Contractor of the approved as-built prints and the original contract drawings, the Contractor shall within 30 days for contracts less than \$5 million or within 60 days for contracts of \$5 million or more, make the final as-built submittal. This submittal shall consist of the completed as-built drawings on 3-1/2 inch floppy disk or compac disk (CD) in AutoCAD 2000 format, one full-size mylar copy of the drawings, and the return of the approved as-built prints. All drawings shall be complete in all details. All AutoCAD files and reproducible drawings will become the property of the Government upon final approval. Failure to submit the above as-built information as required will be cause for withholding any payment due the Contractor under this contract. The Contracting Officer will review all as-built drawings for accuracy and conformance to the above requirements. The Contractor shall make all corrections, changes, additions, and deletions required to meet these standards. Approval and acceptance of final as-built drawings will be required before final payment is made to the Contractor.

3.5 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for the work specified in this section and all costs in connection therewith shall be included in the costs of all the price items.

-- End of Section --

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 02215

GEOTEXTILE

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work covered by this section consists of furnishing all labor, material and equipment, and performing all operations required for furnishing, hauling, and installing the geotextile.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 123	(1996a) Standard Terminology Relating to Textiles
ASTM D 3786	(1987) Hydraulic Bursting Strength of Knitted Goods and Nonwoven Fabrics - Diaphragm Bursting Strength Tester Method
ASTM D 4355	(1999) Deterioration of Geotextiles from Exposure to Ultraviolet Light and Water (Xenon-Arc Type Apparatus)
ASTM D 4491	(1999a) Water Permeability of Geotextiles by Permittivity
ASTM D 4533	(1991; R 1996) Trapezoid Tearing Strength of Geotextiles
ASTM D 4632	(1991; R 1997) Grab Breaking Load and Elongation of Geotextiles
ASTM D 4751	(1999a) Determining Apparent Opening Size of a Geotextile
ASTM D 4833	(2000) Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products
ASTM D 4873	(2001) Identification, Storage, and Handling of Geosynthetic Rolls and Samples

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-04 Samples

Geotextile; G,DO.

If requested by the Contracting Officer, the Contractor shall provide to the Government geotextile samples for testing to determine compliance with any or all the requirements in this specification. Samples shall be submitted within 5 days of the request. All samples provided shall be from the same production lot as will be supplied for the contract, and shall be the full manufactured width by at least 1 foot. Samples submitted for testing shall be identified by manufacturers lot designation.

SD-07 Certificates

Geotextile; G,DO.

The Contractor shall furnish the Contracting Officer no less than 7 days in advance of delivery of material to the work site, in duplicate, a mill certificate or affidavit signed by a legally authorized official from the company manufacturing the geotextile. The mill certificate or affidavit shall attest that the geotextile meets the chemical, physical and manufacturing requirements stated in these specifications.

1.4 SHIPMENT, HANDLING, AND STORAGE

1.4.1 Shipment

All geotextile shall be labeled, shipped, stored, and handled in accordance with ASTM D 4873 and as specified herein. Each roll shall be wrapped in an opaque and waterproof layer of plastic during shipment and storage. The plastic wrapping shall be placed around the geotextile roll in the manufacturing facility and shall not be removed until deployment. Each roll shall be labeled with the manufacturer's name, geotextile type, lot number, roll number, and roll dimensions (length, width, gross weight). Geotextile or plastic wrapping damaged as a result of delivery, storage, or handling shall be repaired or replaced at no additional cost to the Government.

1.4.2 Handling

No hooks, tongs, or other sharp instruments shall be used for handling geotextile. Geotextile shall not be dragged along the ground. Any geotextile determined to be damaged as a result of poor handling shall be removed from the site and replaced, at no additional cost to the Government, by additional geotextile meeting the requirements of this specification.

1.4.3 Storage

During all periods of shipment and storage, the geotextile shall be protected from direct sunlight, ultra-violet rays, temperatures in excess 140 degrees F or less if recommended by the manufacturer, mud, dirt, dust and debris. Geotextiles shall be stored in areas where water cannot accumulate, elevated off the ground, and protected from conditions that will affect the properties or performance of the geotextile.

PART 2 PRODUCTS

2.1 GEOTEXTILE

The geotextile shall be a non-woven pervious sheet of plastic yarn as defined by ASTM D 123. Fibers used in the manufacture of the geotextile shall consist of long-chain synthetic polymer composed of at least 85 percent by weight of polyolefins, polyesters, or polamides. Stabilizers and/or inhibitors shall be added to the base polymer if necessary to make the filaments resistant to deterioration caused by ultraviolet light and heat exposure. Reclaimed or recycled fibers or polymer shall not be added to the formulation. Geotextile shall be formed into a network such that the filaments or yarns retain dimensional stability relative to each other, including the edges. The edges of the geotextile shall be finished to prevent the outer fiber from pulling away from the geotextile. The geotextile shall be manufactured in a width not less than 12 feet and shall meet the physical requirements shown on the following page:

PHYSICAL REQUIREMENTS

PROPERTY	TEST METHOD	ACCEPTABLE TEST RESULTS
Apparent Opening Size (AOS)	ASTM D 4751	U.S. Standard Sieve Nos. 70-100
Geotextile Permittivity	ASTM D 4491	0.7 sec ⁻¹ minimum.
Geotextile Permeability (kG)	ASTM D 4491	0.1 cm/sec minimum.
Puncture Strength (Unaged Geotextile)	ASTM D 4833	250 lbs minimum.
Bursting Strength (Unaged Geotextile)	ASTM D 3786	800 psi minimum.
Trapezoidal Tearing Strength (Unaged Geotextile)	ASTM D 4533	145 pounds minimum in any principal direction.
Grab Tensile Strength (Unaged Geotextile)	ASTM D 4632	400 lbs. min. in any principal direction.
Breaking Elongation (Unaged Geotextile)	ASTM D 4632	50 percent minimum in any principal direction.
Ultraviolet Degradation (Unaged Geotextile)	ASTM D 4355	50% strength retained at 500 hours.
Seam Strength (Unaged Geotextile)	ASTM D 4632	300 lb

Unaged geotextile is defined as geotextile in the condition received from the manufacturer or distributor. AOS is defined as the number of the U.S. Standard Sieve having openings closest in size to the geotextile openings. All numerical values represent minimum average roll values, i.e., any roll in a lot shall meet or exceed the minimum in the table.

PART 3 EXECUTION

3.1 DIVERSION AND DEWATERING

See Section 02315 EXCAVATION AND BACKFILLING for diversion and dewatering requirements.

3.2 SURFACE PREPARATION

The surface on which geotextile will be placed shall be prepared to a relatively smooth condition and shall be free of obstructions, depressions, debris, erosion feature, or vegetation. Any irregularities shall be

removed so as to insure continuous, intimate, contact of the geotextile with all the surface. Erosion features such as rills, gullies, etc. must be graded out of the surface before geotextile placement.

3.3 INSTALLATION OF GEOTEXTILE

3.3.1 General

The geotextile shall be placed as shown on the typical sections on the contract drawings. At the time of installation, the geotextile will be rejected if it has defects, rips, holes, flaws, deterioration or damage incurred during manufacture, transportation or storage.

3.3.2 Protection of Geotextile During Construction

The geotextile shall be protected from damage during the placement of the stone primarily by limiting the height of drop of materials to no greater than 1-foot unless otherwise approved by the Contracting Officer. In addition, the geotextile shall be protected at all times during construction from being fouled with soil or sediment from surface runoff. Any geotextile so contaminated shall be removed and replaced with uncontaminated geotextile. Any damage to the geotextile during its installation or placement of the stone shall be replaced by the Contractor at his own expense.

In no case shall any type of equipment be allowed on the unprotected geotextile.

Failure to comply with these requirements shall require replacement of the geotextile at the Contractor's expense.

3.3.3 Placement

The geotextile shall be placed with the long dimension perpendicular to the wall and shall be laid smooth and free of tension, stress, folds, wrinkles or creases. The strips shall be placed to provide a minimum width of 36 inches of overlap for each joint. If seamed, all seams shall satisfy seam strength requirements as specified herein. The placement procedures require that the length of the geotextile be longer than required, at both ends, as indicated on the contract drawings. A strip of geotextile, in the long dimension, shall be one continuous piece. A strip of geotextile in a sinkhole repair area shall be one continuous piece. There shall be no seaming of individual geotextile pieces together to create this long dimension. The geotextile shall be temporarily held in place (e.g. sand bags), until the stone is placed. The temporary mechanism for holding the geotextile in place shall be removed as the overlying materials are placed to relieve high tensile stress.

3.4 PLACEMENT OF MATERIALS ON GEOTEXTILE

The work shall be scheduled so that the covering of the geotextile with specified materials is accomplished within two hours after placement of the geotextile.

3.5 REPAIR OF DAMAGED GEOTEXTILE

The following procedure shall be performed by the Contractor when repairing damaged sections of the geotextile during or following its installation:

- a. The damaged section of the geotextile shall be cut in a rectangular or square section and removed.
- b. An undamaged piece of geotextile of the same type shall be placed under the original fabric so that its edges over-lap the cut area a minimum of 3 feet in all directions.

Geotextile which cannot be repaired shall be replaced.

3.6 CONTRACTOR QUALITY CONTROL

The Contractor shall include in the reports required by Section 01450 CONTRACTOR QUALITY CONTROL, the date(s) when the geotextile was placed and the date(s) when it was covered with the specified cover materials.

3.7 MEASUREMENT AND PAYMENT

The work specified in this section will not be measured for payment. All costs in connection therewith shall be included in those Price Items for which the geotextile is incidental.

-- End of Section --

SECTION 02271

RIPRAP

PART 1 GENERAL

1.1 SUMMARY

The work covered by this section consists of furnishing all labor, materials, plant, and equipment, and performing all operations required for providing and placing riprap, as specified herein and as shown on the drawings.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 127	(2001) Specific Gravity and Absorption of Coarse Aggregate
ASTM C 131	(1996) Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C 295	(1998) Petrographic Examination of Aggregates for Concrete
CRD-C-144	(1992) Standard Test Method for Resistance of Rock to Freezing and Thawing

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION (PennDOT)

PennDOT Specs	(1994) Commonwealth of Pennsylvania Department of Transportation, Standard Specifications, Publication 408
---------------	--

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-05 Design Data

Riprap Source and Records; G,DO.

The proposed source of the riprap to be used for the work shall be submitted for approval by the Contracting Officer no less than 14 days in advance of delivery of material to the work site.

The Government will visit the selected quarry to inspect rock

quality at least 7 days before any stone delivery to the work site. The Contractor shall have a truck load of each stone type dumped at the quarry. The stone shall be properly graded for inspection by the Government.

SD-07 Certificates

Riprap; G,DO.

Statement signed by an official authorized to certify on behalf of the riprap, attesting that the riprap meets specified requirements. The statement must be dated after the award of the contract, must state the Contractor's name and address, must name the project and location, and must list the specific requirements which are being certified.

Riprap Removal, Excavation and Placement Work Plan; G,DO

The Contractor shall describe, in detail, the personnel, equipment, materials and methods to be utilized in removal of existing riprap, excavation, and placement of geotextile and new riprap. Included shall be diversion and dewatering methods and sequence of operations.

PART 2 PRODUCTS

2.1 RIPRAP

2.1.1 Quality

The stone shall be crushed stone. The stone shall be sound, durable and of suitable quality to ensure performance in the work and in the climate in which it is to be used. Stone shall be free from cracks, seams, and other defects that would tend to increase its deterioration from the elements. The stone shall be blocky and angular quarried material, with the least dimension not less than one-third the greatest dimension. Flat slabs, boulders, and parts of boulders will not be acceptable. The inclusion of objectionable quantities of dirt, sand, clay, and stone fines will not be permitted. The stone dry density shall not be less than 165 pounds per cubic foot. The density shall be based on saturated surface dry specific gravity of the stone determined in accordance with ASTM C 127.

2.1.2 Testing

The following tests will be used by the Government to determine the acceptability of the stone sources selected by the Contractor.

PROPERTY	TEST METHOD	ACCEPTABLE TEST RESULTS
Petrographic	ASTM C 295	Fresh, interlocking, crystalline, with few vugs, no clay minerals and no soluble minerals.
Specific Gravity and Absorption	ASTM C 127	Minimum Unit Weight (dry) of 165 pounds per cubic foot. Absorption less

PROPERTY	TEST METHOD	ACCEPTABLE TEST RESULTS
		than 1%.
Abrasion Resistance	ASTM C 131	Less than 20% loss for 500 revolutions.
Freezing/ Thawing	CRD-C-144	Less than 10% loss for 12 cycles.

Additional testing shall be required if results from the tests, specified above, are close to the limits of acceptability. In the event test reports are not available, as in the case of newly operated sources, the Contractor shall perform such tests as are necessary to determine the acceptability of the stone for use in the work. Approval of a source of stone is not to be construed as approval of all material from that source. The right is reserved to reject materials from certain localized areas, zones, strata, or channels, when such materials are unsuitable for use as determined by the Contracting Officer. Individual stones or loads or parts of loads may be rejected if material does not meet the specifications.

2.1.3 Gradation

The gradation of the riprap shall be as specified for a Class No. R-5 in the PennDOT Specs, Section 850 entitled "Rock Lining", paragraph 850.2(a)2. At all locations, the riprap shall be well graded. The stone shall be blended at the quarry. Blending at the work site is prohibited.

PART 3 EXECUTION

3.1 DIVERSION AND DEWATERING

Diversion and dewatering is required during the removal of existing riprap, excavation, during the placement of geotextile, and during the placement of new riprap. See Section 02315 EXCAVATION AND BACKFILLING for the requirements.

3.2 REMOVAL OF EXISTING RIPRAP

3.2.1 Removal of Existing Riprap

Existing riprap shall be removed in its entirety. The lateral limit of the removal of the existing riprap shall be the outward limit of the new riprap.

3.2.2 Disposal of Existing Riprap

All removed existing riprap shall be disposed of offsite..

3.3 EXCAVATION

Excavation shall be to the lines and grades indicated on the cross sections and as specified in Section 02315 EXCAVATION AND BACKFILLING.

3.4 GEOTEXTILE PLACEMENT

Geotextile placement shall be as specified in Section 02215 GEOTEXTILE.

3.5 TEST SECTION

The Contractor shall initially construct a 20 linear foot riprap test section measured along the wall. This test section shall be approved by the COR prior to any additional riprap placement work. The Contractor shall demonstrate the methods to be utilized to remove existing riprap, excavate, install the geotextile and place new riprap. The Contractor shall also demonstrate the dewatering methods to be utilized.

3.6 RIPRAP PLACEMENT

The desired distribution of the various sizes of stone shall be obtained by selective loading of the material at the quarry, by controlled placement of successive loads during final placement, or by other methods of placement which will produce the specified results. Placing the stone by dumping into chutes or by similar method likely to cause segregation of the various sizes will not be permitted. Rearranging of individual stones by mechanical equipment or by hand shall be performed to the extent necessary to obtain a well-graded distribution of stone as specified above and a reasonably even finished surface. The overall blending of the stone to achieve a well-graded mix shall be completed at the quarry and will be prohibited at the jobsite. The finished surface of the stone shall be within a tolerance of $-.5$ to $+.5$ foot from the slope lines and grades shown on the drawings, except that the extreme of such tolerance shall not be continuous over a distance greater than 10 feet.

The Contractor shall place the riprap in a careful manner to avoid any damage to the existing stone masonry wall and the existing drain at approximately Sta 0+00. Any damage to the stone masonry wall resulting from the Contractor's operations shall be repaired/replaced at the direction of the Contracting Officer at no additional expense to the Government.

3.7 SURVEY REQUIREMENTS

See Section 01720 SURVEY REQUIREMENTS for surveys required to confirm contract compliance.

3.8 MAINTENANCE OF STONE

The Contractor shall maintain the stone placed to the lines and grades shown on the drawings, until accepted by the Government. Any material displaced by any cause shall be replaced at no additional cost to the Government.

3.9 MEASUREMENT AND PAYMENT

3.9.1 Riprap Removal

All costs in connection with the work specified in this section to remove existing riprap, will be included in Price Item No. 5 "Existing Riprap Removal." This work will be measured for payment by the cubic yards of riprap removed. The cubic yardage of existing riprap removed will be computed by the average end-area method from cross sections taken by a licensed Surveyor, before and after removal of existing riprap. The lateral limits of removal operations shall be the wall and the outward toe of the new riprap, as indicated on the cross sections on the drawings. Measurement of this work for payment will not include the yardage of any removals performed prior to the taking of surveys before removal of existing riprap.

See Section 01720 SURVEY REQUIREMENTS for survey requirements. Also included in the cost of this item shall be the disposal of the removed riprap offsite.

3.9.2 Excavation Under Riprap

All costs in connection with the work specified in this section to excavate soil from beneath existing riprap shall be measured and paid as specified in the "Measurement and Payment" of Section 02315 EXCAVATION AND BACKFILLING.

3.9.3 Geotextile and Riprap Placement

The work specified in this section for the placement of riprap will be measured for payment by the ton of riprap satisfactorily placed. The tonnage of new riprap will be measured from certified weigh tickets. Deductions from those quantities will be made for stone not meeting the gradation or quality required. Payment will be made at the contract unit price for Price Item No. 6. "New Riprap."

-- End of Section --

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 02315

EXCAVATION AND BACKFILLING

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work specified in this section includes: clearing required; the excavation for the new riprap; excavation and backfilling behind the wall; and diversion and dewatering required to complete the contract work.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 2487	(2000) Classification of Soils for Engineering Purposes (Unified Soil Classification System)
-------------	--

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION (PennDOT)

PennDOT Specs	(1994) Commonwealth of Pennsylvania Department of Transportation, Standard Specifications, Publication 408
---------------	--

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-07 Certificates

Diversion and Dewatering Plan; G,DO

Information clearly illustrating the means, methods, equipment and materials the contractor proposes for use in diversion and dewatering for all contract operations. Included shall be the layout of all structures and equipment utilized to accomplish this plan.

Structural Backfill; G,DO. Geotextile; G,DO.

Statement signed by an official authorized to certify on behalf of the manufacturer of a material, attesting that the material meets specified requirements. The statement must be dated after the award of the contract, must state the Contractor's name and address, must name the project and location, and must list the

specific requirements which are being certified.

Excavation Work Plan; G,DO.

The procedures proposed for the accomplishment of the excavation work specified in this section shall be submitted for approval by the Contracting Officer prior to the commencement of the work. The procedures shall provide for safe conduct of the work, careful removal and disposition of materials, and protection of property which is to remain undisturbed. The procedures shall include a detailed description of the personnel, methods and equipment to be used for each operation, including but not limited to shoring and bracing, excavation, filling and backfilling, and procedures and location for disposal of unused excavated material and debris. Proposed source of structural fill, and location of proposed staging and stockpile area, shall also be included. If shoring is included in the proposed work plan the design must be submitted by a PE Engineer licensed in PA.

Compaction Work Plan; G,DO.

Compaction equipment and procedures shall be submitted and approved.

1.4 DEFINITIONS

1.4.1 Satisfactory Materials

Satisfactory materials include materials classified in ASTM D 2487 as GW, GP, GM, SW, SP, and SM and shall be free of trash, debris, roots or other organic matter, or stones larger than 3 inches in any dimension.

1.4.2 Unsatisfactory Materials

Unsatisfactory materials include materials classified in ASTM D 2487 as Pt, OH, and OL and any other materials not defined as satisfactory.

1.4.3 Cohesionless and Cohesive Materials

Cohesionless materials include materials classified in ASTM D 2487 as GW, GP, SW, and SP. Cohesive materials include materials classified as GC, SC, ML, CL, MH, and CH. Materials classified as GM and SM will be identified as cohesionless only when the fines are nonplastic.

PART 2 PRODUCTS

2.1 STRUCTURAL BACKFILL

Structural backfill shall be coarse aggregate in accordance with the material requirements of PennDOT Specs, Section 703.2 with a gradation as specified for an AASHTO Number 2A as indicated in Table C of that same section.

2.2 GEOTEXTILE

Geotextile fabric shall be as specified in Section 02215 GEOTEXTILE.

PART 3 EXECUTION

3.1 CLEARING

3.1.1 Vegetation Growing Through Wall

The Contractor shall remove vegetation growing through the wall. The Government will, in advance of the Contractor's arrival, attempt to destroy this growth by the application of herbicide. The Contractor shall remove the dead growth to at least the face of the wall. The Contractor shall cut remaining live growth at the face of the wall. Subsequently, the Contractor shall fill all holes and joints, resulting from the removal and cutting of this growth, with grout, as specified in Section 04920 STONE MASONRY WALL REHABILITATION. All debris shall be disposed of at the Contractor's expense.

3.1.2 Shrubs

Shrubs, located between the stone masonry wall to be repaired and the top of bank, shall be removed in their entirety to a depth of not less than 18 inches below the original surface level of the ground. Care shall be taken as the shrubs are removed to determine if the roots have grown through the wall. The Contractor shall remove the shrubs with care to avoid destabilizing the wall. Depressions made by this operation shall be filled with structural backfill and compacted to make the surface conform with the original adjacent surface of the ground. All debris shall be disposed of at the Contractor's expense.

3.1.3 Timber Pile

A timber pile, attached to the existing pier at approximately Station 0+00, may require moving or removal, as directed by the COR, to complete the contract work.

3.1.4 Debris on Riprap

Debris on the surface of the existing riprap shall be cleared and disposed of offsite, at a landfill, at the Contractor's expense.

3.2 DIVERSION AND DEWATERING

3.2.1 Diversion and Dewatering During Removal, Excavation, and Placement of Riprap

Diversion and dewatering is required during the removal of existing riprap, excavation for the new riprap, placement of geotextile, and placement of new riprap. At no time during these operations, shall the depth of the standing water exceed one foot. Allowances shall be included in the Contractor's diversion and dewatering method to achieve the dewatering requirement specified herein during the complete tide cycle and during storm events.

3.2.2 Diversion During Wall Repair/Reconstruction Work

Surface water shall be directed away from the wall repair/reconstruction work until the grout has set, as required per the grout manufacturer.

3.2.3 Dewatering for Work Behind the Wall

The Contractor shall be responsible for controlling the flow of groundwater

into the excavation behind the wall to prevent sloughing of the excavation slopes and walls, and, to avoid boils, uplift and heave in the excavation. All methods and materials for required dewatering are subject to review and approval by the Contracting Officer prior to their use. Control measures shall be taken by the time the excavation reaches the water level in order to maintain the integrity of the in-situ material. While the excavation is open, the water level shall be maintained continuously, at least .5 foot below the final depth of each excavation area.

3.3 SHORING

Shoring shall be furnished and installed as necessary to protect workmen, banks, and the existing stone masonry wall structure. Method for shoring shall be approved by the COR so to ensure the proposed method does not threaten the structural stability of the historic wall. Shoring and bracing shall be removed as excavations are backfilled, in a manner to prevent caving. Vibratory methods are prohibited.

3.4 STAGING OF MATERIALS

Materials shall not be staged in the area immediately behind the stone masonry wall.

3.5 EXCAVATION FOR NEW RIPRAP

The soil underlying the existing riprap shall be excavated to the elevations indicated on the contract drawings. The excavated soil shall be placed and spread on the river bottom, at the toe of the new riprap, evenly and continuously along the entire structure. The soil shall not be "mounded" or placed in large piles.

3.6 EXCAVATION OF AREAS BEHIND THE STONE MASONRY WALL

3.6.1 Excavation

The Contractor shall excavate all existing sand-filled bags, stone and all other junk fill from the existing sinkholes and wall reconstruction area behind the existing stone masonry wall, in the locations indicated on the contract drawings. The Contractor shall excavate to expose in-situ soil. Satisfactory material removed below exposed in-situ soil, without specific direction of the Contracting Officer, shall be replaced, at no additional cost to the Government, with structural backfill.

3.6.2 Disposal

All materials excavated from behind the stone masonry wall shall be disposed of offsite, at the Contractor's expense, in accordance with all Federal, State, and Local laws.

3.7 CLASSIFICATION OF EXCAVATION

Excavation will be unclassified regardless of the nature of material encountered.

3.8 COMPACTION

Prior to placement of the geotextile, the exposed in-situ soil, in the sink hole areas and behind the wall reconstruction area, shall be compacted as specified below in the paragraph entitled "Backfilling."

There is no surface preparation of the toe for the new riprap, prior to installation of the geotextile, other than smoothing out any surface irregularities as specified in Section 02215 GEOTEXTILE.

3.9 INSTALLATION OF GEOTEXTILE

The geotextile shall be installed as specified in Section 02215 GEOTEXTILE. For the purposes of repairing the sinkholes and reconstruction of the wall section, the geotextile shall be installed to encase the structural backfill.

3.10 BACKFILLING

These backfilling requirements are for the work required to backfill the excavated areas behind the stone masonry wall.

Structural backfill material shall be used in bringing backfills to within 6 inches of the surrounding grade. The structural backfill material used for backfilling purposes, shall be placed in horizontal layers not exceeding 8 inches in loose thickness for the full width. Backfill shall not be placed in wet or frozen areas. After each layer is placed, compaction shall be accomplished by using hand tamping methods, or other methods as approved by the Contracting Officer. Compaction of each layer will be determined on the basis of non-movement of the material under the compaction equipment specified and/or approved.

Approved compacted backfills that are disturbed by the Contractor's operations or adverse weather shall be scarified and compacted as specified herein prior to further construction.

3.11 PLACING TOPSOIL

Topsoil shall be placed in accordance with Section 02920 TOPSOIL AND SEEDING.

3.12 EROSION CONTROL MAT INSTALLATION

Erosion control mat shall be placed as specified in Section 02370 EROSION CONTROL MAT.

3.13 PROTECTION

Settlement or washing that occurs in backfilled, graded, or topsoiled areas prior to acceptance of the work shall be repaired and grades re-established to the required elevations and slopes.

3.14 MEASUREMENT AND PAYMENT

3.14.1 Excavation/Backfill Behind the Wall

All costs in connection with the work specified in this section for excavation and backfill work behind the wall will be included in Price Item No. 7 "Excavation/Backfill Behind the Wall." This work will be measured for payment by the cubic yard of structural backfill satisfactorily placed. The cubic yard of structural backfill satisfactorily placed will be computed by the average end-area method from cross sections taken by a licensed Surveyor, before and after placement of the structural backfill. Measurement of this work for payment will not include the yardage of any

backfill placed prior to the taking of surveys before placement of backfill. See Section 01720 SURVEY REQUIREMENTS for survey requirements.

3.14.2 Excavation Under Riprap

All costs in connection with the work specified in this section to excavate under the existing riprap, will be included in Price Item No. 10 "Excavation Under Riprap." This work will be measured for payment by the cubic yards of soil excavated. The cubic yardage of soil excavated will be computed by the average end-area method from cross sections taken by a licensed Surveyor, before and after excavation of the soil. The lateral limits of excavation shall be the wall and the outward toe of the new riprap, as indicated on the cross sections on the drawings. Measurement of this work for payment will not include the yardage of any excavation performed prior to the taking of surveys before excavation. See Section 01720 SURVEY REQUIREMENTS for survey requirements. Also included in the cost of this item shall be the placing and spreading of the excavated soil at the toe of the new riprap.

3.14.3 Topsoil, Erosion Control Mat, and Seeding and Mulching

Topsoil, placing erosion control mat, and seeding and mulching shall be measured for payment as specified in Sections 02370 EROSION CONTROL MAT and 02920 TOPSOIL AND SEEDING.

-- End of Section --

SECTION 02370

EROSION CONTROL MAT

PART 1 GENERAL

1.1 SUMMARY

The work covered by this section consists of furnishing all labor, material, and equipment, and performing all operations required for providing erosion control mat, complete, as specified herein.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 4355	(1999) Standard Test Method for Deterioration of Geotextiles from Exposure to Ultraviolet Light and Water (Xenon-Arc Type Apparatus)
ASTM D 4873	(2001) Standard Guide for Identification, Storage, and Handling of Geotextiles
ASTM D 5035	(1986) Standard Test Method for Breaking Force and Elongation of Textile Fabrics (Strip Force)
ASTM D 5199	(1986) Standard Test Method for Measuring Nominal Thickness of Geotextiles and Geomembranes
ASTM D 5261	(1986) Standard Test Method for Measuring Mass per Unit Area of Geotextiles

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-03 Product Data

Manufacturer's Catalog Data; G,DO.

The Contractor shall furnish to the Contracting Officer for approval no less than 14 calendar days in advance of delivery of material to the work site, the manufacturer's catalog data for the erosion control mat to be used in the contract work, including physical and performance properties and installation procedures.

SD-04 Sample

Erosion Control Mat; G,DO.

A one foot square sample of matting material shall be submitted for approval no less than 14 calendar days in advance of delivery of material to the work site.

SD-07 Certificates

Work Plan; G,DO.

The Contractor shall submit a detailed work plan for transporting, storing, inspecting, recording, and installing erosion control mat. This plan shall include the proposed brand of erosion control mat and type of fasteners to be used in the contract work, fastener spacing intervals and orientations, descriptions of equipment to be used to handle and install the mat, and sequence of operations: placing topsoil beneath, filling with topsoil, and seeding and mulching the mat.

Erosion Control Mat; G,DO.

The Contractor shall furnish to the Contracting Officer in duplicate, a mill certificate or affidavit signed by a legally authorized official from the erosion control mat manufacturer. The submittal shall attest that the material furnished meets the physical, performance, tensile, and resiliency requirements of the specifications.

1.4 QUALITY ASSURANCE

The Contractor shall have a representative from the manufacturer of the erosion control mat onsite to inspect the prepared surfaces and provide technical assistance regarding installation procedures prior to commencement of placement of the mat. The manufacturer's representative shall supervise the initial placement of the erosion control mat and remain onsite until the Contractor is performing the installation work to the satisfaction of the representative and the Contracting Officer. Once the Contractor is satisfactorily performing the work, the manufacturer's representative shall continue his/her oversight for an additional 8 hours of consecutive installation of the mat. After the initial oversight period, the Contracting Officer may direct the Contractor to retain the manufacturer's representative onsite to inspect the ongoing work as necessary. Also, the manufacturer's representative shall oversee the initial filling of the mat with topsoil.

1.5 SHIPMENT, HANDLING, AND STORAGE

All erosion control mats shall be labeled, shipped, stored, and handled in accordance with ASTM D 4873, the manufacturer's recommendations, and as specified herein. During all periods of shipment and storage, the erosion control mat shall be protected from direct sunlight, ultra-violet rays, temperatures in excess 140 degrees F or less if recommended by the manufacturer, mud, dirt, dust and debris. Erosion control mats shall be stored in areas where water cannot accumulate, elevated off the ground, and protected from conditions that will affect the properties or performance of the mats. To the extent possible, each roll shall be maintained wrapped in

a heavy duty protective cover until deployment. Each roll shall be labeled with the manufacturer's name, product type, lot number, roll number, and roll dimensions (length, width, gross weight). Erosion control mat damaged as a result of delivery, storage, or handling shall be repaired or replaced, as directed at no additional cost to the Government.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Erosion Control Mat

Erosion control mat shall be soil-filled type, specifically designed for long-term erosion control and turf reinforcement. The erosion control mat shall be a three-dimensional, nondegradable geomatrix of polyolefin, polypropylene, or nylon synthetic fibers, unless otherwise approved. Erosion control mat shall form a stable mat of suitable weight and configuration, resilient, permeable, and highly resistant to environmental deterioration and ultra-violet degradation.

2.1.1.1 Physical Requirements

The erosion control mat shall meet the physical requirements shown in the following below:

<u>PROPERTY/TEST METHOD</u>	<u>REQUIREMENT/ACCEPTABLE TEST RESULTS</u>
Industry Designation	Turf Reinforcement Matrix (TRM) and/or Erosion Control Revegetation Matrix (ECRM).
Composition	Polyolefin, Polypropylene, or Nylon.
Thickness of Mat (ASTM D 5199 @ 2 kPa)	0.5 inch, minimum.
Mass per unit area (ASTM D 5261)	10 ounces per square yard, minimum.
Wide Width Tensile Strength (ASTM D 5035)	170 lbs./foot minimum lengthwise 90 lbs./foot minimum widthwise.
Tensile Elongation (ASTM D 5035)	20% minimum in machine direction. 12% minimum in cross-machine direction.
Ultraviolet Degradation (ASTM D 4355)	80% strength retained at 500 hours, minimum.

All numerical values represent minimum average roll values, i.e., any roll in a lot shall meet or exceed the minimum in the table. Erosion control mat physical property values shall be based on standard test methods performed by a Geosynthetics Accreditation Institute (GAI-LAP) accredited laboratory.

2.1.2 Wood Stakes

Wood stakes shall be sound, rough-sawn, Red or White Cedar or hardwoods measuring 1 inch X 3 inches, tapered to a point throughout, with a length

of 18 inches.

2.1.3 Metal Geotextile Stake Pins

Metal geotextile stake pins shall be 3/16-inch (minimum) diameter steel with a 1.5-inch steel washer at the head of the pin. Stake pins shall be 18 inches long.

2.1.4 U-Shaped Wire Staples

U-Shaped wire staples shall be a minimum of 8-gauge steel, 18 inches long, unless otherwise recommended by the manufacturer and approved by the Contracting Officer.

PART 3 EXECUTION

3.1 SURFACE PREPARATION

The erosion control mat shall be placed on prepared surfaces, as specified in Section 02920 TOPSOIL AND SEEDING. The prepared surfaces will require inspection and approval by the Contracting Officer prior to the placement of the matting. The surface to receive the matting shall be prepared to a relatively smooth condition free of obstructions, depressions, debris, and soft or low density pockets of material.

3.2 INSTALLATION

3.2.1 General

Erosion control mat shall be installed on-slope from the top inside edge of the stone masonry wall to just beyond the top of slope, as shown on the typical sections. The erosion control mat shall be placed in strict accordance with the manufacturer's installation procedures and in the manner as shown on the contract drawings. Installation shall commence at the downstream end of the work area and proceed upstream. Any material found to have defects, rips, holes, flaws, deterioration or damage will be rejected. In no case shall any type of equipment be allowed on the matting at any time during performance of this contract.

3.2.2 Placement

The mat shall be placed with the long dimension perpendicular to the wall. All material shall be placed smooth and free of tension, stress, folds, wrinkles, or creases. Each strip shall be placed to provide a minimum width of 6 inches of overlap at each joint. The top and bottom edges shall be anchored as shown on the drawings and in accordance with the erosion control mat manufacturer's published installation details.

3.2.3 Fastening

The mat shall be fastened to the ground surface by driving wooden stakes, metal geotextile stake pins, U-shaped wire staples, or other approved fastener through the material at specific intervals and orientations recommended by the mat manufacturer and approved by the Contracting Officer. Additional stakes shall be provided as necessary to prevent slippage of the mat. Wooden stakes shall be driven such that 2 to 3 inches of the stakes remains above grade. The stakes shall be oriented so their widest side is parallel to the wall. Wide staples and metal stake pins

shall be driven flush to grade.

3.2.4 Turf

Topsoil, seed, and mulch shall be placed as specified in Section 02920
TOPSOIL AND SEEDING.

3.3 MEASUREMENT AND PAYMENT

The work specified in this section for the installation of erosion control mat will be measured for payment by the square yard of erosion control mat satisfactorily installed. All costs in connection therewith shall be included in Price Item No. 8 "Erosion Control Mat." Included in this Price Item shall be the topsoil placed beneath, the topsoil to fill the mat, and seeding and mulching the mat.

-- End of Section --

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 02820

ORNAMENTAL FENCE

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work in this section includes providing a new ornamental fence, with gate, to be installed at the top of the wall.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA)

AAMA 2603	(1998) Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels
-----------	--

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM B 221	(2000) Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes
ASTM C 94	(2000e2) Ready-Mixed Concrete
ASTM D 3359	(1997) Measuring Adhesion by Tape Test
ASTM D 3363	(2000) Film Hardness by Pencil Test

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-07 Certificates

Work Plan: G,COR.

Contractor shall submit a work plan describing the labor, equipment and materials to be utilized to install the new fence.

Fence: G,COR

Statement signed by an official authorized to certify on behalf of the manufacturer of the product, system or material, attesting that the product, system or material meets specified requirements.

The statement must be dated after the award of the contract, must state the Contractor's name and address, must name the project and location, and must list the specific requirements which are being certified.

SD-04 Samples

Fence; G,COR.

Samples of fence to be installed.

PART 2 PRODUCTS

2.1 ORNAMENTAL FENCE

The fence shall be extruded aluminum, as specified in ASTM B 221, the style indicated on the contract drawing, industrial grade. The color shall be a manufacturer standard dark black or dark brown, as directed by the COR. Fasteners and accessories shall be either 410 or 18-8 stainless steel or extruded aluminum, painted to match the finish of the fence. Finish shall meet AAMA 2603, ASTM D 3363 for hardness, and ASTM D 3359 for adhesion.

2.2 GATE

Gate shall be constructed of the same materials as the fence and the style shall match the fence. Gate shall have adjustable self-closing hinges and shall be self-latching.

2.3 CONCRETE

ASTM C 94, using 3/4 inch maximum size aggregate, and having minimum compressive strength of at least 3000 psi at 28 days.

PART 3 EXECUTION

3.1 INSTALLATION

3.1.1 General

Fence shall be installed in location indicated on the drawings. Area for installation shall be graded to remove any surface irregularities which may cause interference with the installation of the fence and gate. Fence and gate shall be set plumb and level.

3.1.2 Posts

Post holes shall be cleared of loose material. Each post shall be set in concrete to the depth indicated on the drawings. Posts shall be set plumb and in alignment. Concrete shall be thoroughly consolidated around each post, shall be free of voids and finished to form a dome of the dimension shown on the drawings. Concrete shall be allowed to cure for 72 hours prior to attachment of any item to the posts.

3.1.3 Cleaning

Fence and gate components shall be cleaned with mild detergent and rinsed well. All mortar shall be removed.

3.2 MEASUREMENT AND PAYMENT

The work specified herein will not be measured for payment. All costs in connection therewith shall be included in the Lump Sum Price Item No. 9 "Ornamental Fence."

-- End of Section --

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 02920

TOPSOIL AND SEEDING

PART 1 GENERAL

1.1 SUMMARY

The work covered in this section consists of furnishing labor, materials, plant and equipment and performing all operations required for placing topsoil, seeding, and mulching as specified herein.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AGRICULTURAL MARKETING SERVICE (AMS)

AMS-01 (Amended thru: Aug 1988) Federal Seed Act
Regulations (Part 201-202)

FEDERAL SPECIFICATIONS (FS)

FS O-F-241 (Rev. D) Fertilizers, Mixed, Commercial

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION (PennDOT)

PennDOT Specs (1994) Commonwealth of Pennsylvania
Department of Transportation, Standard
Specifications, Publication 408

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-07 Certificates

Seed; G,DO. Fertilizer; G,DO. Topsoil; G,DO. Plants; GA.

Statement signed by an official authorized to certify on behalf of the manufacturer of a product, system or material, attesting that the product, system or material meets specified requirements. The statement must be dated after the award of the contract, must state the Contractor's name and address, must name the project and location, and must list the specific requirements which are being certified.

1.4 DELIVERY, STORAGE, AND HANDLING

1.4.1 Inspection of All Materials

Material shall be inspected upon arrival at the jobsite and unacceptable

material shall be removed from the jobsite.

1.4.1.1 Topsoil

A soil test shall be provided for topsoil delivered to the site.

1.4.1.2 Soil Amendments

Delivery of fertilizer and lime to the site shall be in original, unopened containers bearing manufacturer's chemical analysis.

1.4.2 Storage

Materials shall be stored in areas designated by the Contracting Officer. Seed, lime and fertilizer shall be stored in cool, dry locations away from contaminants.

1.4.3 Handling

Materials shall not be dropped or dumped from vehicles.

PART 2 PRODUCTS

2.1 SEED

2.1.1 Seed Classification

State-certified seed of the latest season's crop shall be provided in original sealed packages bearing the producer's guaranteed analysis for percentages of mixture, purity, germination, hard seed, weed seed content, and inert material. Labels shall be in conformance with AMS-01 and applicable state seed laws.

2.1.2 Seed Mixtures

The seed mixtures shall be Formula B as specified in PennDOT Specs, Section 804, Table A.

2.2 SOIL AMENDMENTS

Soil amendments shall consist of lime and fertilizer meeting the following requirements.

2.2.1 Lime

Commercial grade ground or hydrated limestone containing not less than 50 percent of total oxides, 85 percent calcium and magnesium oxides and ground to such fineness that a minimum 50 percent pass 100-mesh sieve and 98 percent pass 20-mesh sieve.

2.2.2 Fertilizer

Fertilizer shall be commercial grade, free flowing, uniform in composition and conforming to FS O-F-241. Fertilizer shall be granular of the composition determined on the basis of a soil test.

2.2.3 Mulch

Mulch shall be free from weeds, mold and other deleterious materials.

2.2.3.1 Wood Cellulose Fiber

Wood cellulose fiber shall not contain any growth or germination-inhibiting factors and shall be dyed an appropriate color to facilitate visual metering during application. Composition on air-dry weight basis: 9 to 15 percent moisture, pH range from 4.5 to 6.0. Use with hydroseeding application of grass seed and fertilizer. When added to water, it forms a homogeneous slurry.

2.3 EROSION CONTROL MAT

Erosion control mat shall be in accordance with Section 02370 EROSION CONTROL MAT.

2.4 TOPSOIL

Topsoil shall be imported and as specified in Subsection 802.2 of the PennDOT Specs.

2.5 HYDROPHILIC COLLOIDS

Hydrophilic colloids shall be physiologically harmless to plant and animal life, without phytotoxic agents. Colloids shall be naturally occurring, silicate powder based, and shall form a water insoluble membrane after curing. Colloids must resist mold growth.

2.6 WATER

Water shall not contain elements toxic to plant life.

PART 3 EXECUTION

3.1 SCOPE

Topsoil shall be placed in all disturbed areas and beneath the erosion control mat. Erosion control mat shall be filled with topsoil. Topsoil placed in all disturbed areas and the filled erosion control mat shall be seeded and mulched as specified herein.

Seeding shall be performed in areas indicated on the drawings or in areas disturbed by Contractor operations, and in accordance with the application rates and methods specified in PennDOT Specs, Section 804, Table A, and Section 804.3. At the option of the contractor and with the approval of the Contracting Officer, seeding may be performed by hand or mechanical methods.

3.2 SEEDING CONDITIONS

Seeding operations shall be performed only during periods when beneficial results can be obtained. When drought, excessive moisture or other unsatisfactory conditions prevail, the work shall be stopped when directed. When special conditions warrant a variance to the seeding or planting operations, proposed times shall be submitted to and approved by the Contracting Officer.

3.3 SEEDING TIMES

Seeding operations shall be performed only during periods when beneficial results can be obtained. When drought, excessive moisture, or other unsatisfactory conditions prevail, the work shall be stopped when directed.

3.4 SITE PREPARATION

3.4.1 Preparation of Seeding Areas

3.4.1.1 General

Areas to receive topsoil shall be filled as needed or have surplus soil removed to attain the finished grade. The Contractor shall smooth grade these areas. Drainage patterns shall be maintained. Turf areas compacted by construction operations shall be completely pulverized by tillage. Soil used for repair of erosion or grade deficiencies shall conform to topsoil requirements specified in this section. Finished grade shall be 1 inch below the adjoining grade of any surfaced area. New surfaces shall be blended to existing areas. Debris and stones larger than 1 inch in any dimension shall be removed from the surface.

3.4.1.2 Topsoil Placement in Disturbed Areas and Underneath Erosion Control Mat

The subgrade soil shall be scarified to a 2-inch depth using heavy rakes or other approved methods. Stones and other foreign material 2 inches or larger in any dimension shall be removed and satisfactorily disposed. Topsoil shall be placed in all disturbed areas and underneath erosion control mat. The topsoil shall be spread and compacted to a 4-inch uniform thickness. Compaction shall be performed using a roller weighing not over 120 pounds per foot width of roller or by other approved methods. Topsoil shall not be placed when the subgrade is frozen, excessively wet, extremely dry, or in a condition otherwise detrimental to proper grading. All placed topsoil shall be graded to drain. Soil amendments shall be applied to topsoil prior to installation of erosion control mat.

3.4.1.3 Topsoil Placement Over Erosion Control Mat

After the mat has been satisfactorily installed in accordance with Section 02370 EROSION CONTROL MAT, additional topsoil shall be placed over the mat and hand spread evenly to a depth that shall completely fill the mat's voids. In no case shall any type of equipment be allowed on the matting at any time during performance of this contract. Excess soil thickness shall be avoided.

3.4.1.4 Unsatisfactory Environmental Conditions

Site preparation work shall be performed only during periods when beneficial results can be obtained. When drought, excessive moisture or other unsatisfactory condition prevails, the work shall be stopped when directed.

3.4.2 Application of Soil Amendments

3.4.2.1 Soil Test

A soil test shall be performed for pH, chemical analysis and mechanical analysis to establish the quantities and type of soil amendments required to meet local growing conditions for the type and variety of turf specified.

3.4.2.2 Lime

Lime shall be applied at the rate recommended by the soil test. Lime shall be incorporated into the soil to a minimum depth of 4 inches or may be incorporated as part of the tillage operation.

3.4.2.3 Fertilizer

Fertilizer shall be applied at the rate recommended by the soil test. Fertilizer shall be incorporated into the soil to a minimum depth of 4 inches or may be incorporated as part of the tillage or hydroseeding operation.

3.4.2.4 Deviations

Deviations in the ground surface in relation to the grades indicated shall be corrected prior to turfing.

3.5 SEEDING

3.5.1 General

Prior to seeding, any previously prepared seedbed areas compacted or damaged by interim rains, traffic or other cause, shall be reworked to restore the ground condition previously specified. Do not hydroseed when the wind velocity is such as to prevent uniform seed distribution.

3.5.2 Equipment Calibration

The equipment to be used and the methods of seeding shall be subject to the inspection and approval of the Contracting Officer prior to commencement of seeding operations. Immediately prior to the commencement of seeding operations, the Contractor shall conduct seeding equipment calibration tests in the presence of the Contracting Officer.

3.5.3 Hydroseeding

Seed and fertilizer shall be added to water and thoroughly mixed at the rates specified. Wood cellulose fiber mulch shall be added at the rates recommended by the manufacturer after the seed, fertilizer and water have been thoroughly mixed, to produce a homogeneous slurry. Slurry shall be uniformly applied under pressure over the entire area. Adequate soil moisture shall be ensured by spraying water on the entire hydroseeded area and moistening the soil to a minimum depth of 2 inches. The hydroseeded area shall not be rolled.

3.5.4 Applying Wood Cellulose Fiber Mulch

Wood cellulose fiber mulch shall be applied as part of the hydroseeding application.

3.5.5 Applying Non-asphaltic Tackifier

Hydrophilic colloid tackifier shall be applied at rate recommended by manufacturer. Apply with hydraulic equipment suitable for mixing and applying uniform mixture of tackifier.

3.5.6 Watering Seeded Areas

Watering shall be started within 7 days after completing the seeded area. Water shall be applied at the rate sufficient to ensure moist soil conditions to a minimum depth of 2 inches. Run-off and puddling shall be prevented.

3.6 RESTORATION AND CLEAN UP

3.6.1 Restoration

Existing turf areas, pavements and facilities that have been damaged from the seeding and mulching and planting operations shall be restored to original condition at Contractor's expense.

3.6.2 Clean Up

Excess and waste material shall be removed and shall be disposed of off the site. Adjacent paved areas shall be cleaned.

3.7 PROTECTION OF SEEDED AND MULCHED AREAS

Immediately after seeding and mulching, the area shall be protected against traffic or other use by erecting barricades and providing signage as required or as directed by the Contracting Officer.

3.8 ESTABLISHMENT PERIOD

3.8.1 Commencement

The Establishment Period for establishing a healthy stand of turf, and healthy plants, shall begin on the first day of work under this contract and shall end three (3) months after the last day of seeding and mulching and planting operations required by this contract. Written calendar time period shall be furnished to the Contracting Officer for the Establishment Period.

3.8.2 Satisfactory Stand of Turf

A satisfactory stand of turf from the seeding operation is defined as a minimum of 50 grass plants per square foot. Bare spots shall be no larger than 3-inches square. The total bare spots shall not exceed 2 percent of the total seeded area.

3.8.3 Maintenance of Turf During Establishment Period

3.8.3.1 General

Maintenance of the turfed areas shall include eradicating weeds, eradicating insects and diseases, protecting embankments and ditches from erosion, maintaining erosion control materials and mulch, protecting turfed areas from traffic, mowing, watering, and post-fertilization.

3.8.3.2 Mowing

Seeded areas shall be mowed to a minimum height of 1-1/2 inches when the average height of the turf becomes 4 inches.

3.8.3.3 Watering

Watering shall be at intervals to obtain a moist soil condition to a minimum depth of 1 inch. Frequency of watering and quantity of water shall be adjusted in accordance with the growth of the turf. Run-off, puddling and wilting shall be prevented.

3.8.3.4 Post-Fertilization

Nitrogen carrier fertilizer shall be applied at the rate of no more than 0.5 pounds per 1000 square feet after the first month and again in 3 months. The application shall be timed prior to the advent of winter dormancy and shall avoid excessively high nitrogen levels.

3.8.3.5 Repair

The Contractor shall re-establish as specified herein, eroded, damaged or barren areas. Mulch shall also be repaired or replaced as required.

3.8.4 Maintenance Report

A written record shall be furnished to the Contracting Officer of the maintenance work performed.

3.8.5 Maintenance Instructions

Written instructions shall be furnished to the Contracting Officer for year-round care of installed plants.

3.9 FINAL ACCEPTANCE

3.9.1 Preliminary Inspection

Prior to the completion of the establishment period a preliminary inspection shall be held by the Contracting Officer. Time for the inspection will be established in writing. The acceptability of the turf in accordance with the establishment period shall be determined. Unacceptable stand of turf shall be repaired and/or replaced as soon as possible.

3.9.2 Final Inspection

A final inspection shall be held by the Contracting Officer to determine that deficiencies noted in the preliminary inspection have been corrected. Time for the inspection shall be established in writing.

3.10 MEASUREMENT AND PAYMENT

3.10.1 Erosion Control Mat

Topsoil placed beneath and to fill the erosion control mat and seeding and mulching the mat will be measured for payment as specified in Section 02370 EROSION CONTROL MAT.

3.10.2 Disturbed Areas

All work specified herein for placing topsoil, seeding, and mulching areas disturbed by the Contractor's operations will not be measured for payment. Costs in connection therewith shall be included in all Price Items.

-- End of Section --

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 04920

STONE MASONRY WALL REHABILITATION

PART 1 GENERAL

1.1 SCOPE OF SECTION

The work specified in this section includes the rehabilitation of the stone masonry wall including reconstructing a whole section of the wall, repairing the wall in various areas by grouting whole areas and resetting some wall stones, and placing new capstones where required.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Stone Masonry Work; G,DO.

Drawings, including plans, elevations, and details, showing proposed reconstruction of the stone masonry wall as indicated on the contract drawings.

SD-03 Product Data

Stone; G,DO.

Submit source of supply information for all stone obtained from outside sources including wallstone and capstone.

Grout; G,DO.

Submit manufacturer's data on proposed quick setting grout.

Cold Weather Installation; G,DO.

Cold weather construction procedures shall be described in detail including personnel, equipment and materials proposed to be utilized.

SD-04 Samples

Stones; G,DO.

Submit samples of all stone items obtained from approved outside sources including wallstone and capstone proposed for use in the construction. A minimum of one capstone and a 1-ton load of wallstone shall be supplied for approval. No stone obtained from outside sources shall be used until approved by the Contracting Officer.

SD-06 Test Reports

SD-07 Certificates

Stone Masonry Wall Rehabilitation Qualifications and Experience;
G,DO.

Qualifications, with verification of experience, of the Contractor in the rehabilitation of stone masonry.

These qualifications must clearly illustrate a minimum of two (2) projects performed within the past eight (8) years by the Contractor or his stone masonry sub-contractor of a similar scope, size and complexity to this project. The Contractor's past project experience must be verifiable via references listed in the pre-award survey. The Contracting Officer, at his option, shall certify that the Contractor's past project experience, as submitted, is acceptable in scope, size and complexity, and his proposed key full-time staff have similar experience over the past eight years.

It will be the Contracting Officer's sole decision as to the acceptability of the Contractor's past experience as evidence of the Contractor's qualifications to satisfactorily complete this project. If the Contracting Officer finds the Contractor's qualifications through past experience, or their key full-time staff to be unsatisfactory to complete this project, the Contracting Officer has the option to request additional qualifications, sub-contractors, and/or key full-time staff until an acceptable level of qualification is submitted and approved. Stone masonry work shall not commence until Contractor qualifications and staff are accepted by the Contracting Officer.

Reconstruction and Repair Work Plan; G,DO.

The procedures proposed for the accomplishment of the stone masonry rehabilitation work including reconstruction of a portion of the wall, resetting wallstones and capstones, and grouting the area indicated on the drawings. The procedures shall provide for safe conduct of the work, careful removal and disposition of the existing masonry stone which shall be reused to the maximum extent possible, protection of property and the remaining portions of the wall which is to remain undisturbed, and coordination with other work in progress. The procedures shall include a detailed description of the personnel, methods and equipment to be used for each operation, and the sequence of operations.

Grout; G,DO.

Statement signed by an official authorized to certify on behalf of the manufacturer of a product, system or material, attesting that the product, system or material meets specified requirements. The statement must be dated after the award of the contract, must state the Contractor's name and address, must name the project and location, and must list the specific requirements which are being certified.

1.3 GENERAL REQUIREMENTS

The work under this specification includes the requirements for furnishing all labor, materials and equipment required for the stone masonry rehabilitation of the existing wall as indicated on the contract drawings. The work includes:

- A. Reconstruction of a whole failed section of stone masonry wall.
- B. Resetting/reinstallation of loose, displaced or missing wallstones. The locations requiring this repair work is indicated on the contract drawings. Any additional areas identified by the Contractor requiring resetting/reinstallation of stones shall be inspected and approved by the COR prior to commencing work on those areas.
- C. Regrouting the entire area of wall between elevation 3.5 and mean high water.
- D. The resetting/reinstallation of loose, displaced, or missing capstone onto the wall.
- E. Grouting holes created by removal of vegetation.

1.4 REUSE OF EXISTING STONE MASONRY CAPSTONES AND WALLSTONES

The Contractor may reuse capstones and wallstones recovered from the base of the wall in the stone masonry rehabilitation work. The Contractor shall reuse existing masonry capstones and wallstones that are in place but require resetting. All recovered and existing stones shall be approved by the COR for acceptability of quality and size prior to their reuse. For proposal purposes, the Contractor shall assume that all required capstones and wallstones shall be imported.

1.5 DELIVERY, HANDLING, AND STORAGE

Grout and all other materials required for the contract work shall be delivered in unopened containers, plainly marked and labeled with manufacturers' names and brand. All materials shall be stored in dry, weathertight enclosures or be completely covered. All materials shall be handled in a manner that will prevent the inclusion of foreign materials and damage by water or dampness.

1.6 PROTECTION OF EXISTING PROPERTY

Before beginning any of the work, the Contractor shall carefully survey the site and examine the drawings and specifications to determine the extent of the work. The Contractor shall take all necessary precautions to avoid damage to the existing stone masonry wall and other existing items to remain in place, to be reused, or to remain the property of the Government, and any damaged items shall be replaced as approved by the Contracting Officer at no additional cost to the Government. The Contractor shall construct and maintain shoring, bracing and supports, as required to ensure that the existing stone masonry wall is not overloaded.

PART 2 PRODUCTS

2.1 STONE MASONRY ITEMS

The Contractor shall provide wallstone and capstone from an approved

outside source to match the existing adjacent stone masonry in appearance and color.

2.2 GROUT

Grout shall be a quick setting, hydraulic cementitious, low shrinkage, high early strength grout with excellent freeze/thaw resistance. Grout shall achieve a minimum compressive strength of 5000 psi at 28 days.

PART 3 EXECUTION

3.1 PLANT GROWTH THROUGH THE EXISTING WALL

Existing plant growth through the wall shall be removed as specified in Section 02315 EXCAVATION AND BACKFILLING.

3.2 DELINEATION OF EXTENT OF RECONSTRUCTION AND REPAIR

Utilizing the drawings as a guide, the Contractor shall locate the area to be reconstructed and the areas requiring setting of stones. Using latex paint or other temporary means, the Contractor shall delineate the areas to be reconstructed and repaired. In addition, the Contractor shall delineate any other areas of the stone masonry wall (not identified on the contract drawings) requiring repair. Subsequent to delineation of all repair areas, the COR shall review each repair area for approval prior to the Contractor commencing repair work on the areas.

3.3 COMPLETION OF WORK TO MATCH EXISTING LAYOUT

The stone masonry wall rehabilitation work shall be completed with the objective of matching the stone layout and joint sizes of the existing wall to the maximum extent possible.

3.4 DEMONSTRATION OF STONE MASONRY REHABILITATION WORK

The Contractor shall demonstrate his proposed stone masonry repair techniques prior to commencing the rehabilitation work. The sample work shall be in actual repair areas of the stone masonry wall so that the sample work may, if acceptable, be incorporated into the contract work. The Contractor shall notify the Contracting Officer at least one week in advance of this demonstration to allow for coordination with the District Office and Olde Fort Mifflin staff for inspection and approval. The Contracting Officer shall determine acceptability of workmanship and appearance.

3.5 HOT AND COLD WEATHER INSTALLATION REQUIREMENTS

The Contractor shall follow and adhere to the grout manufacturer's recommendations and restrictions for procedures to be followed during hot or cold installation.

3.6 STONE MASONRY REHABILITATION

3.6.1 General

Stone masonry rehabilitation work shall be performed at the repair locations and at the reconstruction location indicated on the drawings. Loose particles, laitance, spalling, cracked, or debonded masonry and

mortar and foreign materials shall be removed with hand tools unless otherwise noted. Stone masonry being laid and surfaces to receive stone masonry shall be free of frost. Surfaces of the structure, and surfaces adjacent to the work area shall be protected from damage which may result from removal, cleaning, and repair operations. The new or reconstructed stone masonry shall match the existing surrounding stone work in terms of stone type, size, shape, angularity and color; finished joint size and appearance; stone placement and bond pattern; and overall physical dimension and configuration of the completed work.

3.6.2 Shoring

It is the contractor's responsibility to provide adequate shoring and support of the surrounding stone work to prevent further collapse or degradation of the wall. If collapse or further degradation occurs as a result of contractor negligence to provide adequate support, the entire wall section that collapsed or was degraded shall be reconstructed as specified herein, at no additional cost to the Government.

3.6.3 Surface Preparation

Surfaces prepared for repair shall be cleaned free of dust, dirt, masonry chips, oil or other contaminants and shall be prepared or primed as recommended by the grout manufacturer.

3.6.4 Cutting and Fitting

Full stone masonry units of the proper size shall be used wherever possible. Field shaping, chiseling, cutting and fitting of the stone masonry shall be done only as required to fit the existing spaces.

3.6.5 Joint Widths

Joint widths shall match the existing adjacent joint widths but in all cases shall be a maximum of 4 inches or the maximum recommended by the grout manufacturer, whichever is less. In locations where regrouting would result in a joint greater than 4 inches, the Contractor shall reset a new wallstone.

3.6.6 Joint Depths

During resetting of stones, grouting, and reconstruction work, the grout shall be placed between stones a minimum of 4 inches, deep into the wall.

3.6.7 Repair Locations

For resetting stones, the depth (i.e. distance into the wall) for removal and resetting of stones shall be final-determined in the field and approved by the Contracting Officer prior to placing new or resetting existing stones.

3.6.8 Reconstruction of Wall

The Contractor shall reconstruct the wall to match the cross-section of the walls on either side of the reconstruction location.

3.6.9 Regrouting Wall Between Elevation 3.5 and Mean High Water

The Contractor shall regrout all stones between elevation 3.5 and mean high

water, between the stations indicated on the contract drawings.

3.7 CAULKING

Caulking will not be permitted.

3.8 TOLERANCES

The stone masonry wall shall be reconstructed and repaired with a tolerance of 1/2 inch from plumb in both vertical and horizontal. The capstones shall be placed with a tolerance of 1/2 inch from level.

3.9 POINTING AND CLEANING

After exposed joints have attained their initial set, but prior to hardening, grout and splashings shall be completely removed from exposed stone masonry surfaces. Before completion of the work, defects in joints of exposed masonry, shall be raked out as necessary, filled with grout, and tooled to match existing joints.

3.10 GROUT CURING

Grout shall be cured as recommended by the manufacturer of the grout.

3.11 FILLING HOLES

Holes created by the removal of vegetation growing through the wall shall be filled with grout.

3.12 CLEAN-UP

Debris, rubbish, and waste materials from the dismantlement operation shall be removed from the project site daily, unless otherwise directed, to avoid accumulation at the site. Debris and rubbish shall be removed from the project site and transported in a manner that prevents spillage on streets or adjacent areas. Local regulations regarding hauling and disposal shall apply.

3.13 MEASUREMENT AND PAYMENT

3.13.1 Resetting Wallstones

The work specified in this section for the repair of the stone masonry wall by resetting wallstones will be measured for payment by the square foot of wall repaired. All costs in connection therewith shall be included in Price Item No. 1 "Resetting Wall Stones." For proposal purposes, the Contractor shall assume that these wallstones shall be imported.

3.13.2 Resetting Capstones

The work specified in this section for resetting capstones will be measured for payment by the linear foot of capstone to be set. All costs in connection therewith shall be included in Price Item No. 2 "Resetting Capstones." For proposal purposes, the Contractor shall assume that all required capstones shall be imported.

3.13.3 Stone Masonry Wall Reconstruction

The work specified in this section for the reconstruction of the stone

masonry wall will be measured for payment by the cubic foot of wall either repaired or reconstructed. All costs in connection therewith shall be included in Price Item No. 3 "Stone Masonry Wall Reconstruction." For proposal purposes, the Contractor shall assume that all required wallstones shall be imported.

3.13.4 Grouting Stone Masonry Wall

The work specified in this section for the grouting of the stone masonry wall will be measured for payment by the square foot of wall grouted. All costs in connection therewith shall be included in Price Item No. 4 "Grouting Stone Masonry Wall."

-- End of Section --

This page was intentionally left blank for duplex printing.